

FIG. 1a

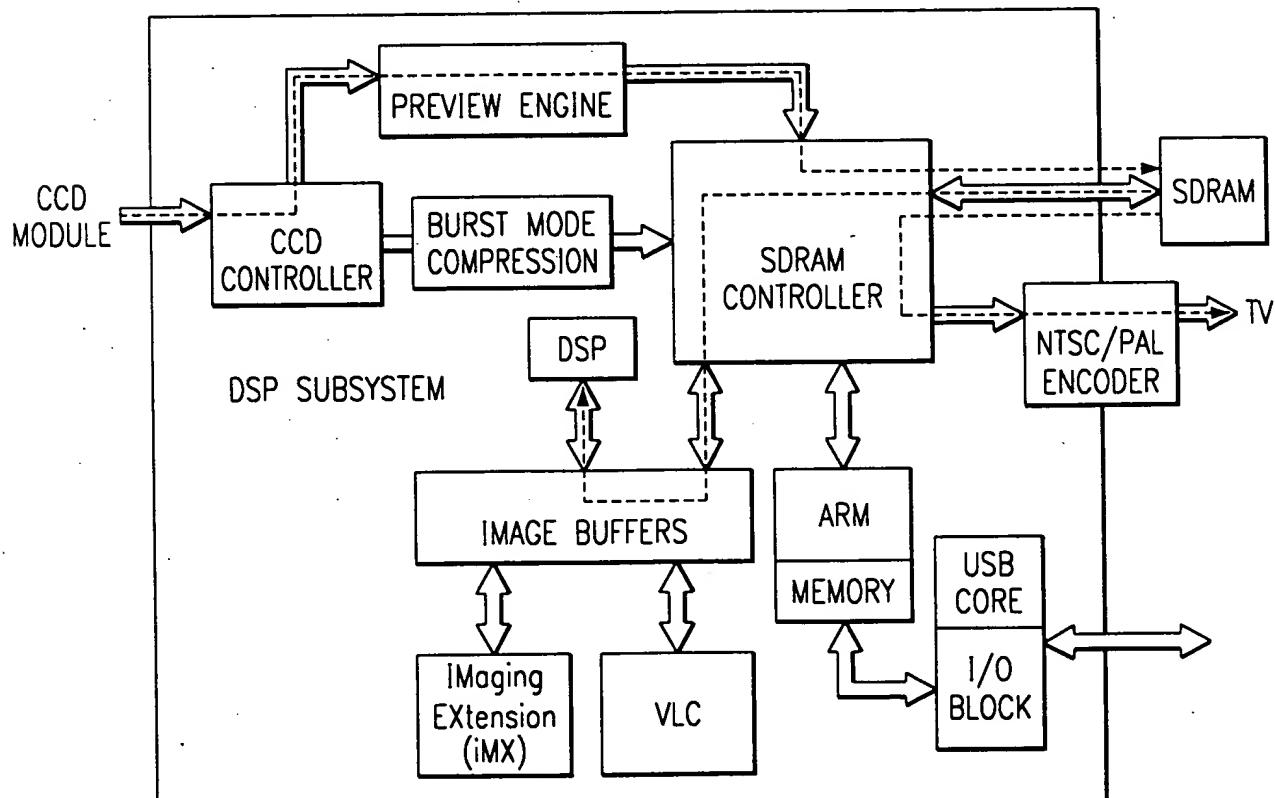


FIG. 2

09245432-1422000

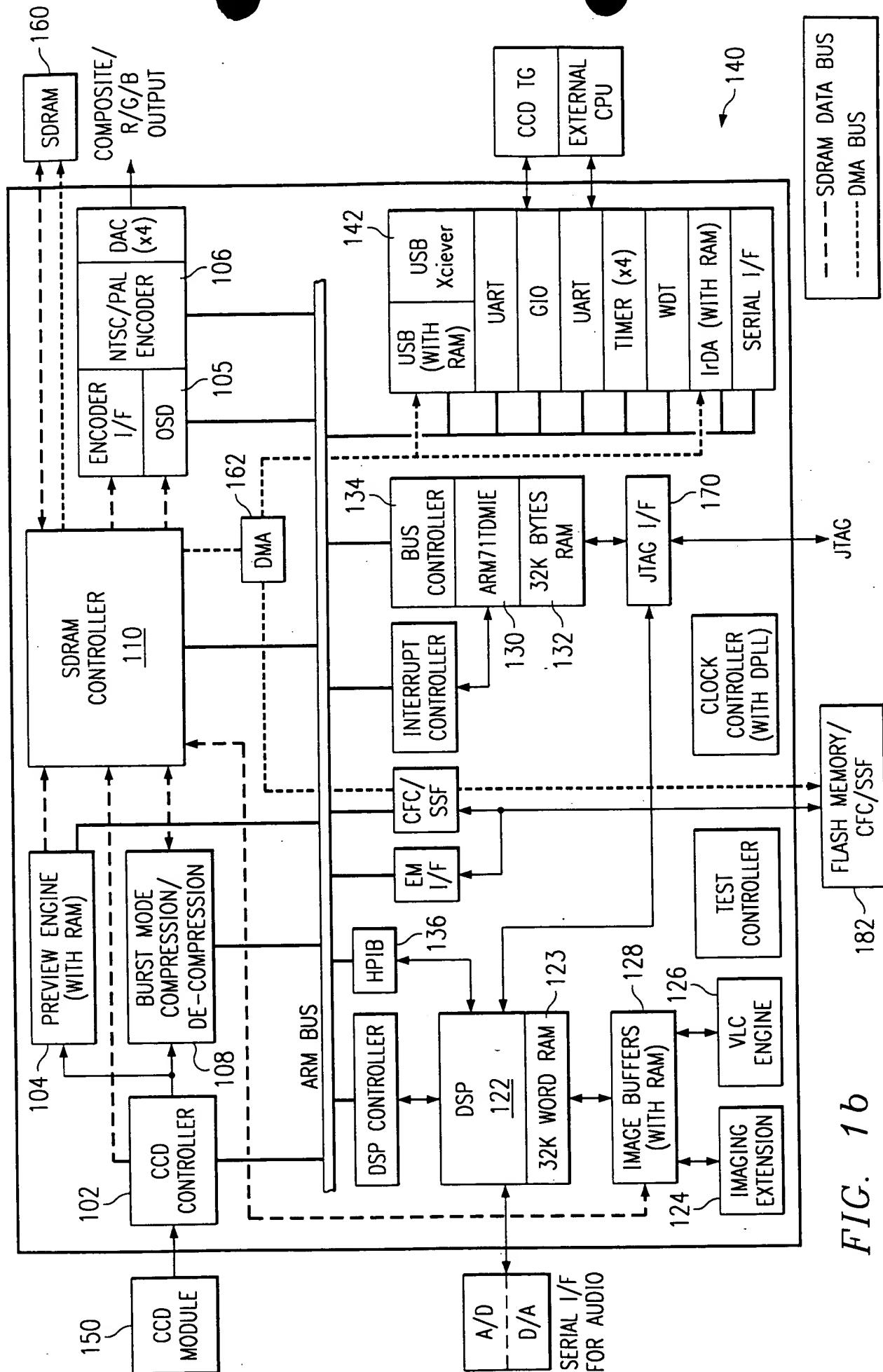


FIG. 1 b

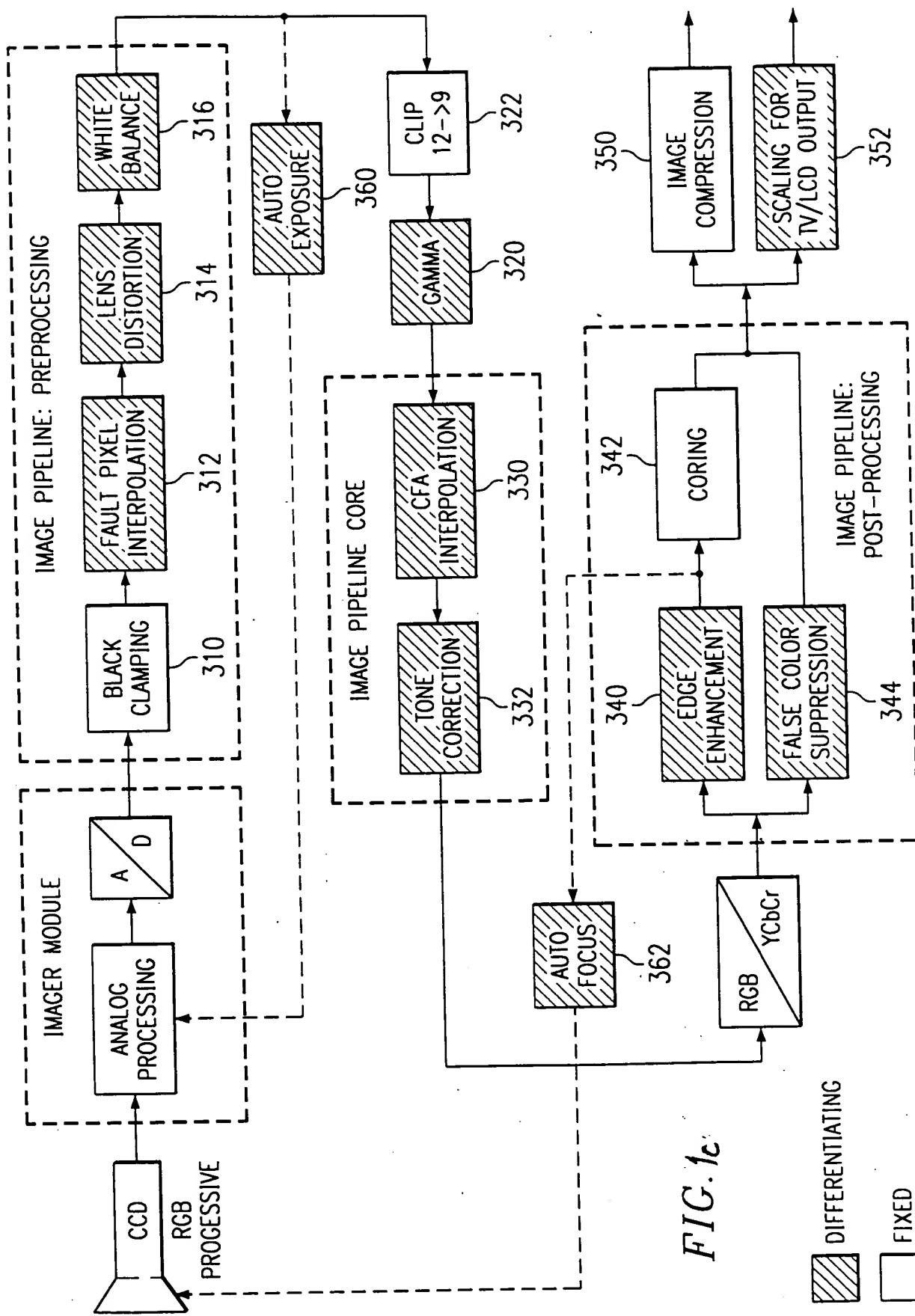


FIG. 1c

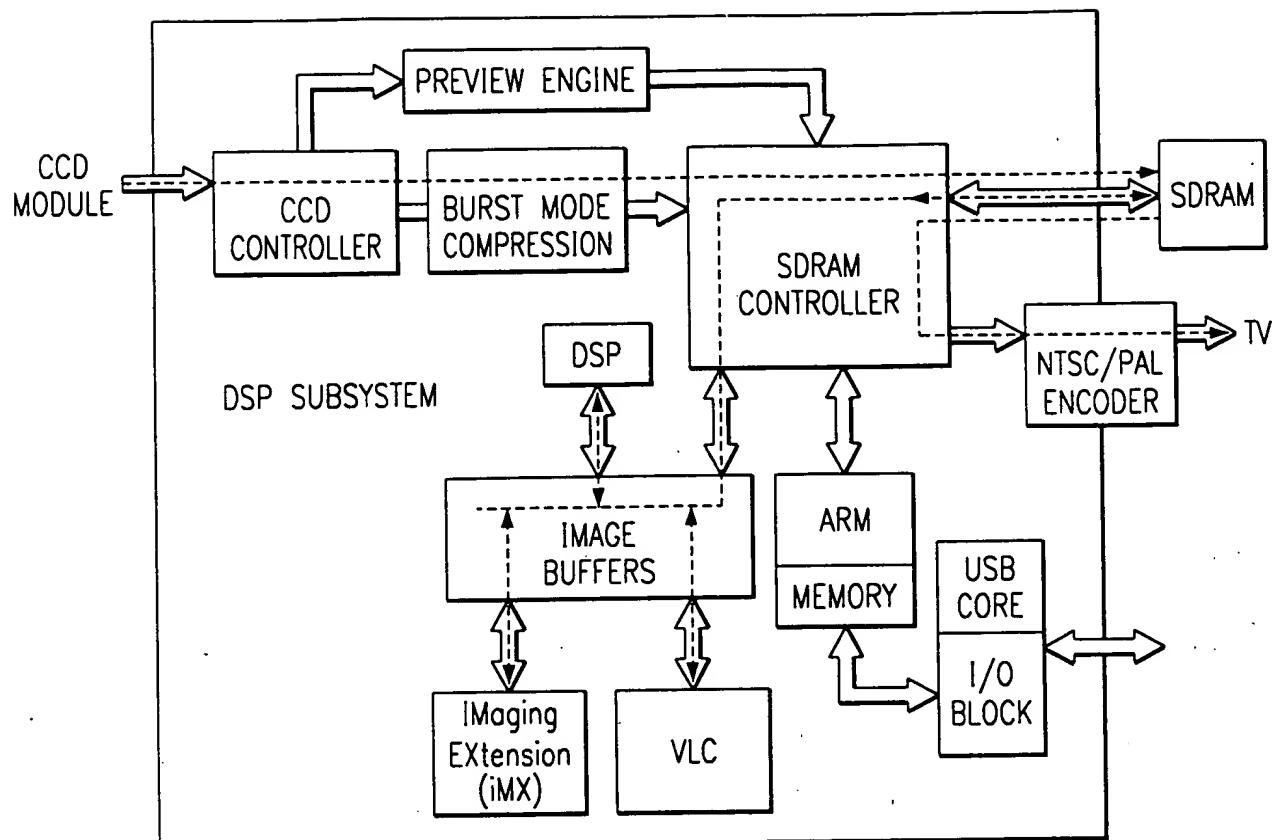


FIG. 3a

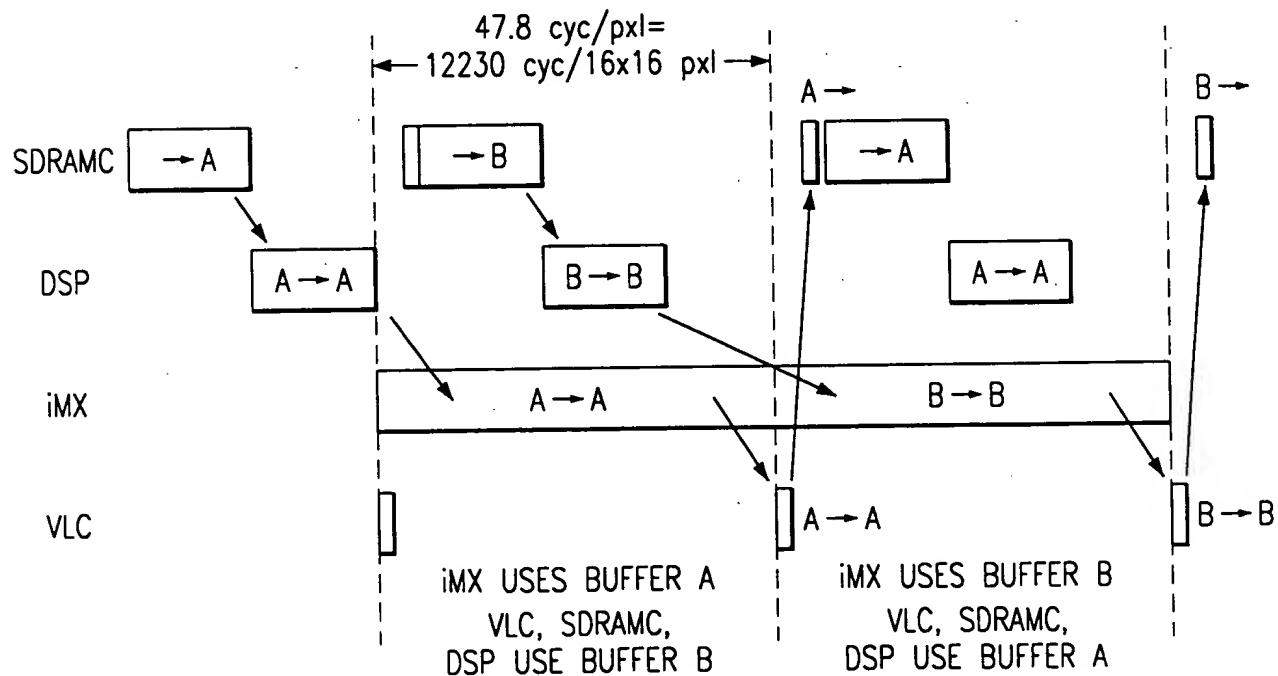


FIG. 3b

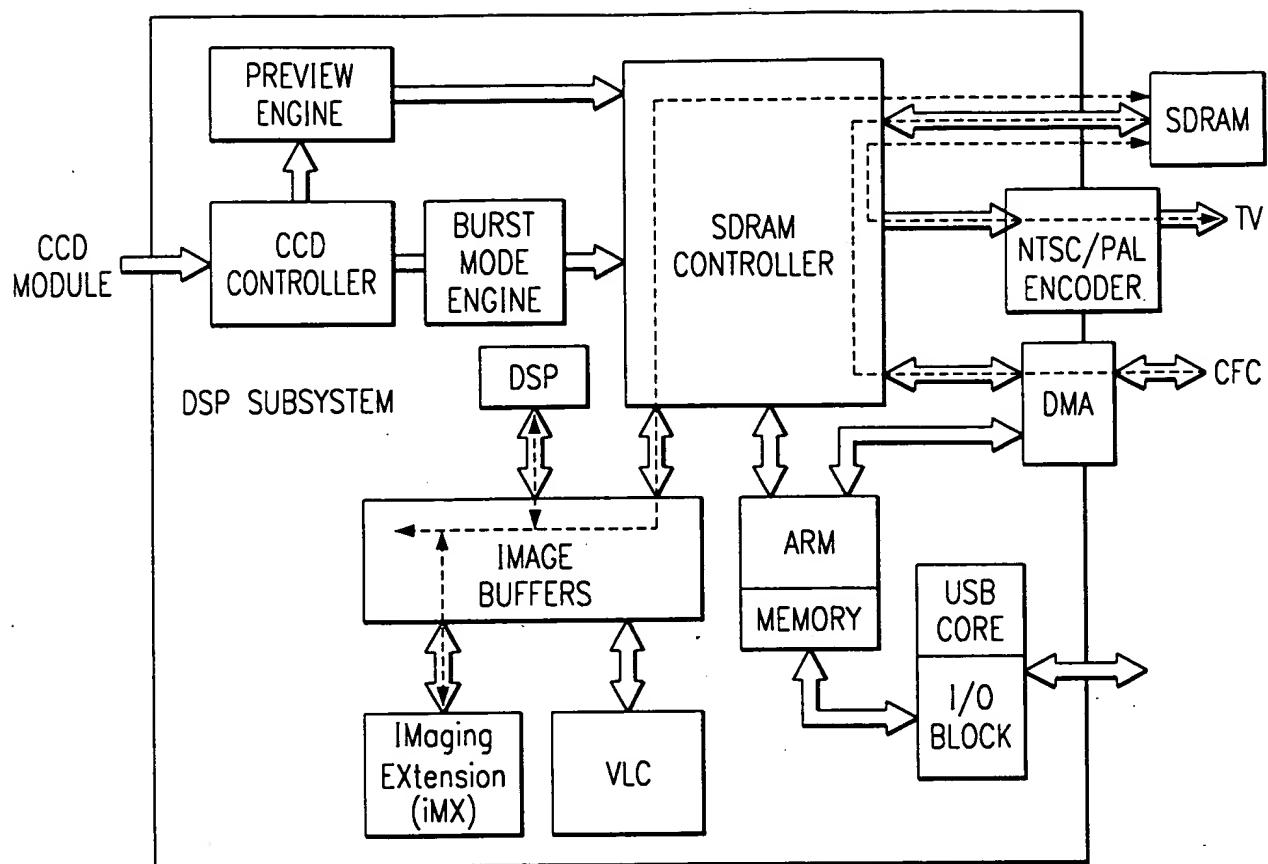


FIG. 4

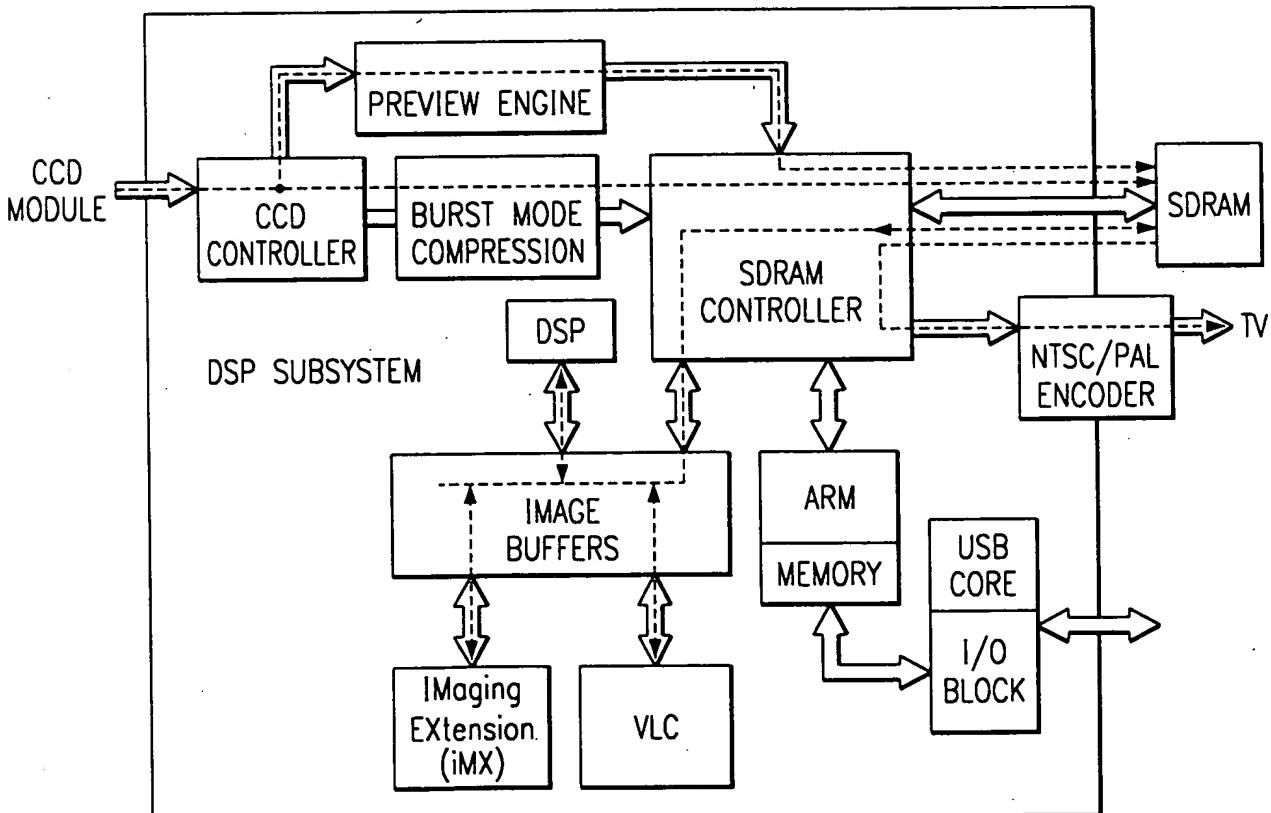


FIG. 5

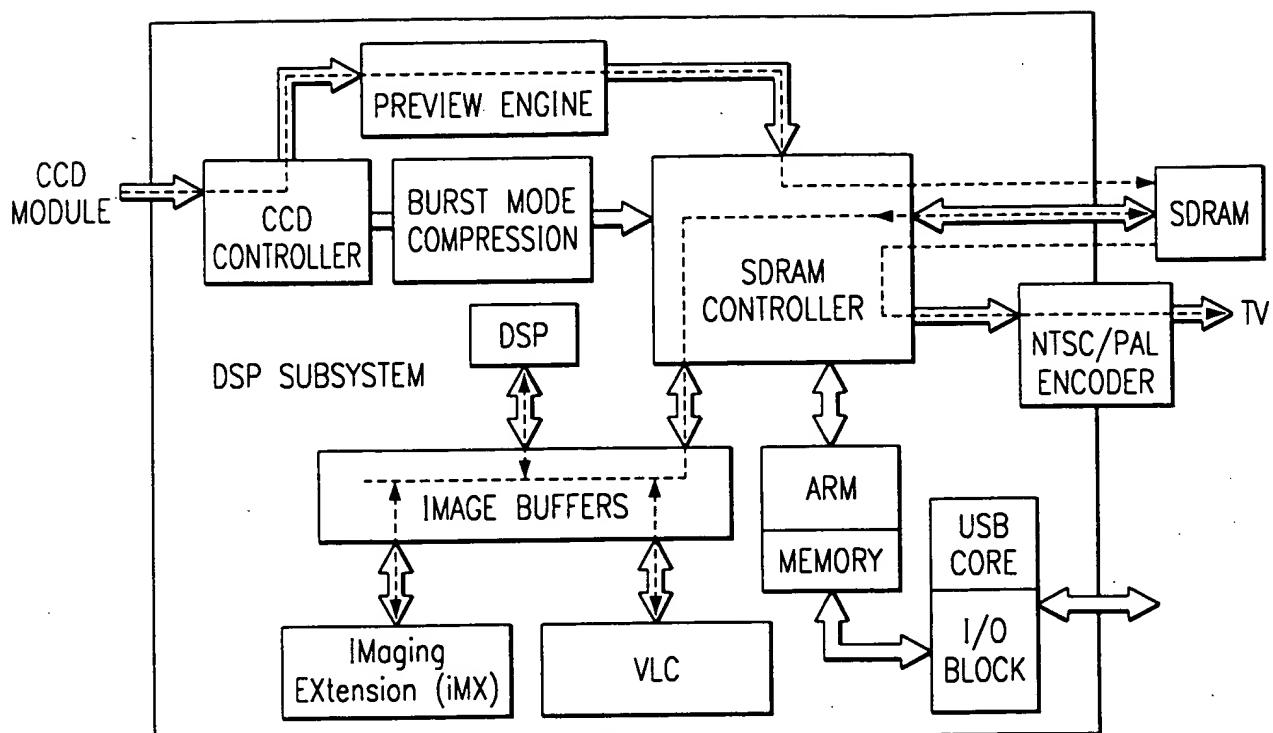


FIG. 6

R	G	R	G
G	B	G	B
R	G	R	G
G	B	G	B

FIG. 7a

Ye	Cy	Ye	Cy
G	Mg	G	Mg
Ye	Cy	Ye	Cy
G	Mg	G	Mg

FIG. 7b

```

If( IN[17]=1 or IN[16]=1) then
    OUT[9..0]=0x3FF;
else
    OUT[9..0]=IN[15..6];
end if;

```

```

If( IN[17]=1 or IN[16]=1 or IN[15]=1) then
    OUT[7..0]=0xFF;
else
    OUT[7..0]=IN[14..7];
end if;

```

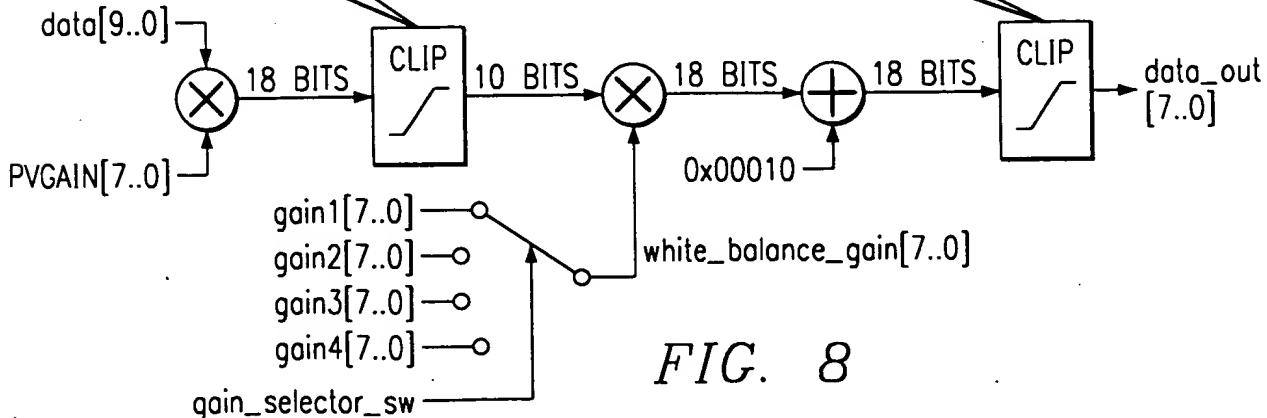
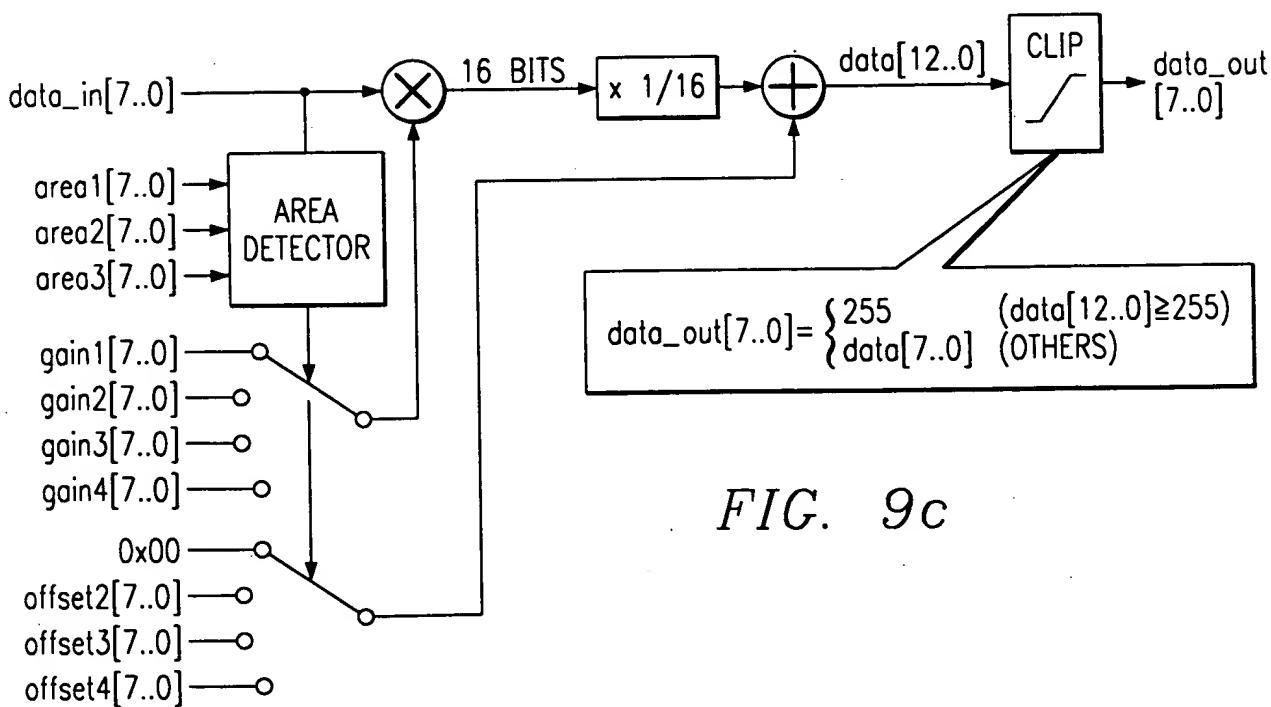
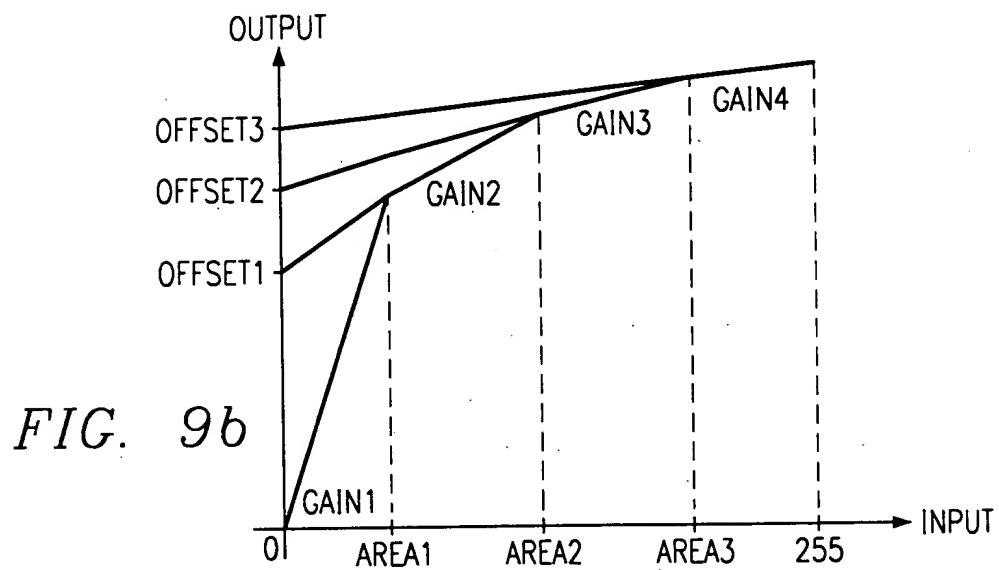
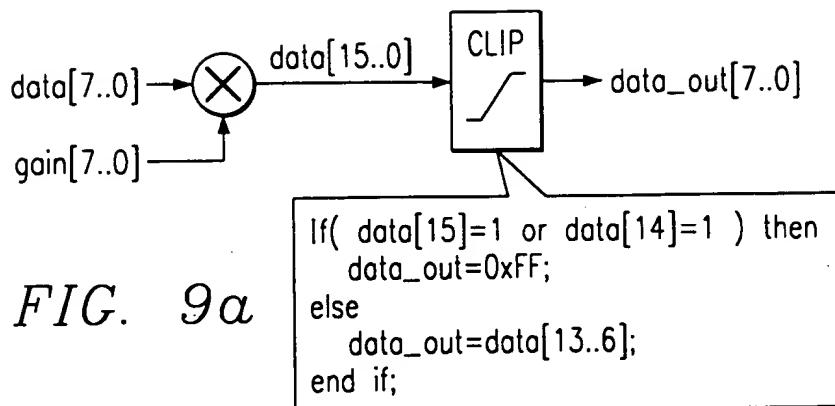


FIG. 8



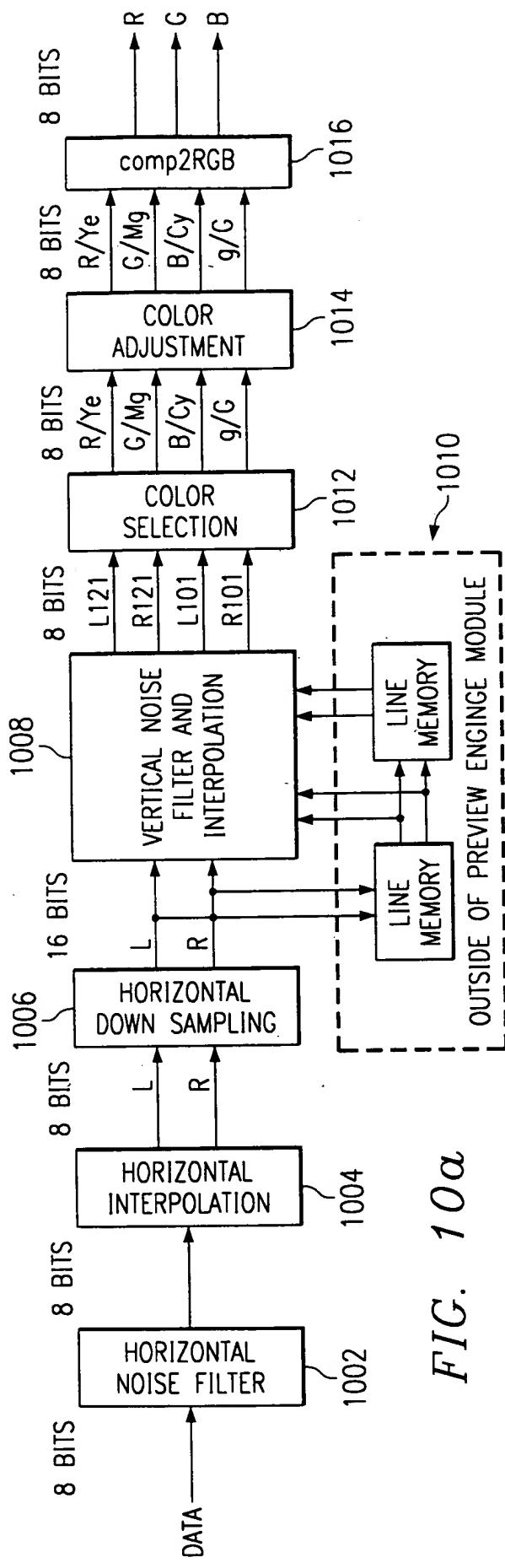


FIG. 10a

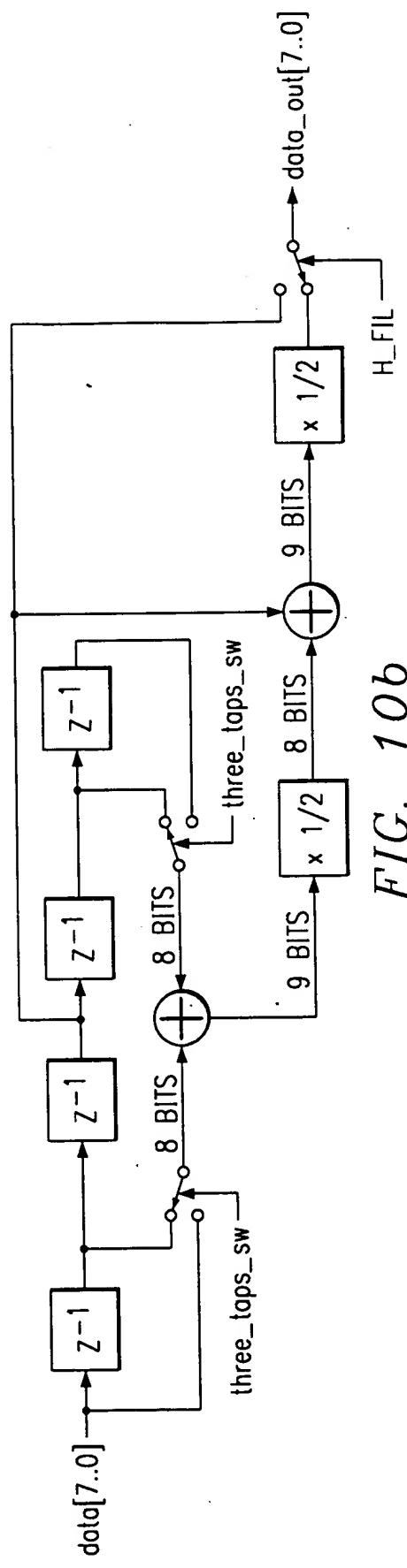
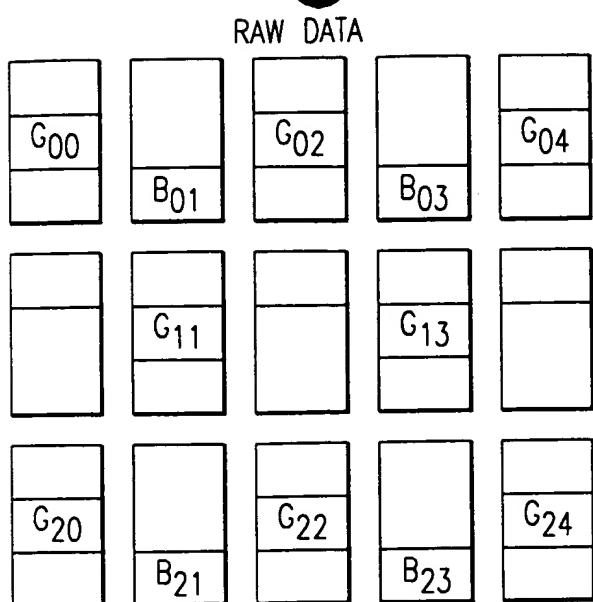
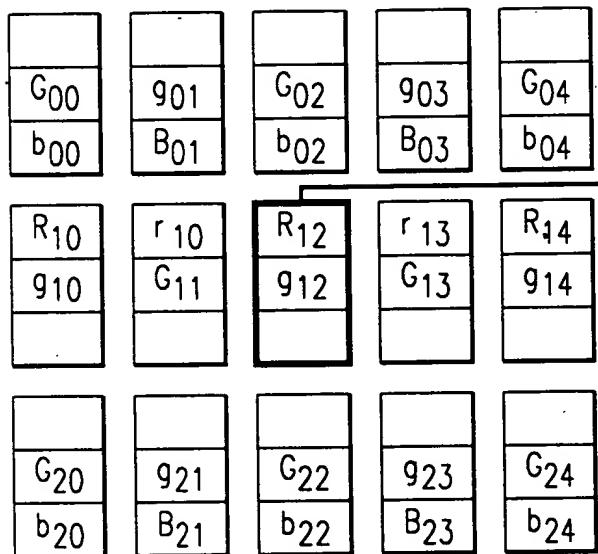


FIG. 10b

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HORIZONTAL
INTERPOLATION ↓NORMAL MODE

$$g_{12} = \frac{-R_{10} + 2G_{11} + 2R_{12} + 2G_{13} - R_{14}}{4}$$

SIMPLE MODE

$$g_{12} = \frac{G_{11} + G_{13}}{2}$$

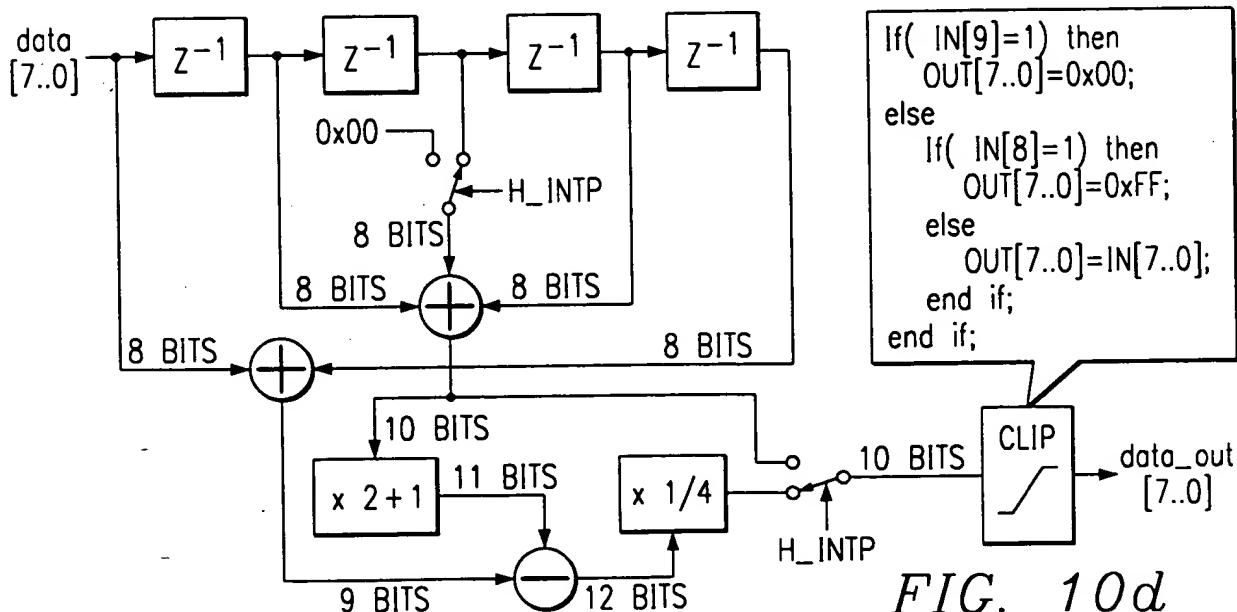


FIG. 10d

OUTPUT OF HORIZONTAL INTERPOLATION

901	G02	903
B01	b02	B03

r11	R12	r13
G11	912	G13

921	922	923
B21	B22	B23

VERTICAL
INTERPOLATION ↓

r01	r02	r03
901	G02	903
B01	b02	B03

r11	R12	r13
G11	912	G13
b11	b12	b13

r21	r22	r23
921	922	923
B21	B22	B23

SIMPLE MODE

COLOR ADJUSTMENT
(NORMAL MODE) ↓

r̄01	r̄02	r̄03
901	G02	903
B01	b02	B03

r̄01	R̄02	r̄03
901	G02	903
B01	b02	B03

r11	R12	r13
G11	912	G13
b11	b12	b13

r11	R12	r13
G11	912	G13
B11	b12	B13

r̄21	r̄22	r̄23
921	922	923
B21	B22	B23

r̄21	R̄22	r̄23
921	922	923
B21	B22	B23

FIG. 10e

OUTPUT OF HORIZONTAL INTERPOLATION

Ye ₀₀	cy ₀₀	ye ₀₁	Cy ₀₁	Ye ₀₂	cy ₀₂
G ₁₀	mg ₀₀	9 ₁₁	Mg ₁₁	G ₁₂	mg ₁₂
Ye ₂₀	cy ₂₀	ye ₂₁	Cy ₂₁	Ye ₂₂	cy ₂₂

VERTICAL
INTERPOLATION

Ye ₀₀	cy ₀₀	ye ₀₁	Cy ₀₁	Ye ₀₂	cy ₀₂
9 ₀₀	mg ₀₀	9 ₀₁	mg ₀₁	9 ₀₂	mg ₀₂
ye ₁₀	cy ₁₀	ye ₁₁	cy ₁₁	ye ₁₂	cy ₁₂
G ₁₀	mg ₁₀	9 ₁₁	Mg ₁₁	G ₁₂	mg ₁₂
Ye ₂₀	cy ₂₀	ye ₂₁	Cy ₂₁	Ye ₂₂	cy ₂₂
9 ₂₀	mg ₂₀	9 ₂₁	mg ₂₁	9 ₂₂	mg ₂₂

COLOR ADJUSTMENT
(NORMAL MODE)

ye ₀₀	cy ₀₀	ye ₀₁	cy ₀₁	ye ₀₂	cy ₀₂	ye ₀₀	cy ₀₀	ye ₀₁	Cy ₀₁	Ye ₀₂	cy ₀₂
9 ₀₀	mg ₀₀	9 ₀₁	mg ₀₁	9 ₀₂	mg ₀₂	9 ₀₀	mg ₀₀	9 ₀₁	mg ₀₁	9 ₀₂	mg ₀₂
ye ₁₀	cy ₁₀	ye ₁₁	cy ₁₁	ye ₁₂	cy ₁₂	ye ₁₀	cy ₁₀	ye ₁₁	cy ₁₁	ye ₁₂	cy ₁₂
9 ₁₀	mg ₁₀	9 ₁₁	mg ₁₁	9 ₁₂	mg ₁₂	G ₁₀	mg ₁₀	9 ₁₁	Mg ₁₁	G ₁₂	mg ₁₂
ye ₂₀	cy ₂₀	ye ₂₁	cy ₂₁	ye ₂₂	cy ₂₂	Ye ₂₀	cy ₂₀	ye ₂₁	Cy ₂₁	Ye ₂₂	cy ₂₂
9 ₂₀	mg ₂₀	9 ₂₁	mg ₂₁	9 ₂₂	mg ₂₂	9 ₂₀	mg ₂₀	9 ₂₁	mg ₂₁	9 ₂₂	mg ₂₂

$$ye_{11} = \frac{ye_{01} + ye_{21}}{2}$$

$$cy_{11} = \frac{Cy_{01} + Cy_{21}}{2}$$

SIMPLE MODE

$$a = g_{11} + Mg_{11} - ye_{11} - cy_{11}$$

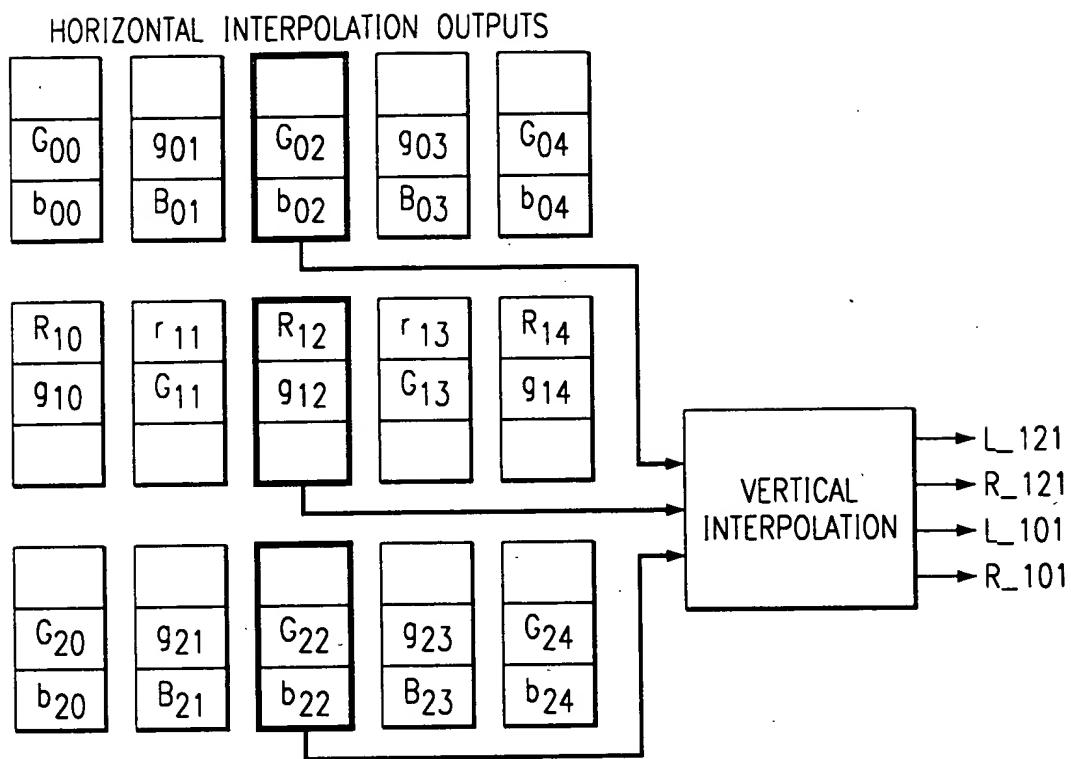
$$\overline{ye}_{11} = ye_{11} + \frac{a}{4}$$

$$\overline{cy}_{11} = cy_{11} + \frac{a}{4}$$

$$\overline{g}_{11} = g_{11} - \frac{a}{4}$$

$$\overline{Mg}_{11} = Mg_{11} - \frac{a}{4}$$

FIG. 10f



NOISE FILTER = OFF

$$\left\{ \begin{array}{l} L_{121} = R_{12} \\ R_{121} = g_{12} \\ L_{101} = \frac{G_{02} + G_{22}}{2} \\ R_{101} = \frac{b_{02} + b_{22}}{2} \end{array} \right.$$

NOISE FILTER = ON

$$\left\{ \begin{array}{l} L_{121} = R_{12} - g_{12} + \frac{G_{02} + 2g_{12} + G_{22}}{4} \\ R_{121} = \frac{G_{02} + 2g_{12} + G_{22}}{4} \\ L_{101} = \frac{G_{02} + G_{22}}{2} \\ R_{101} = \frac{b_{02} + b_{22}}{2} \end{array} \right.$$

FIG. 10g

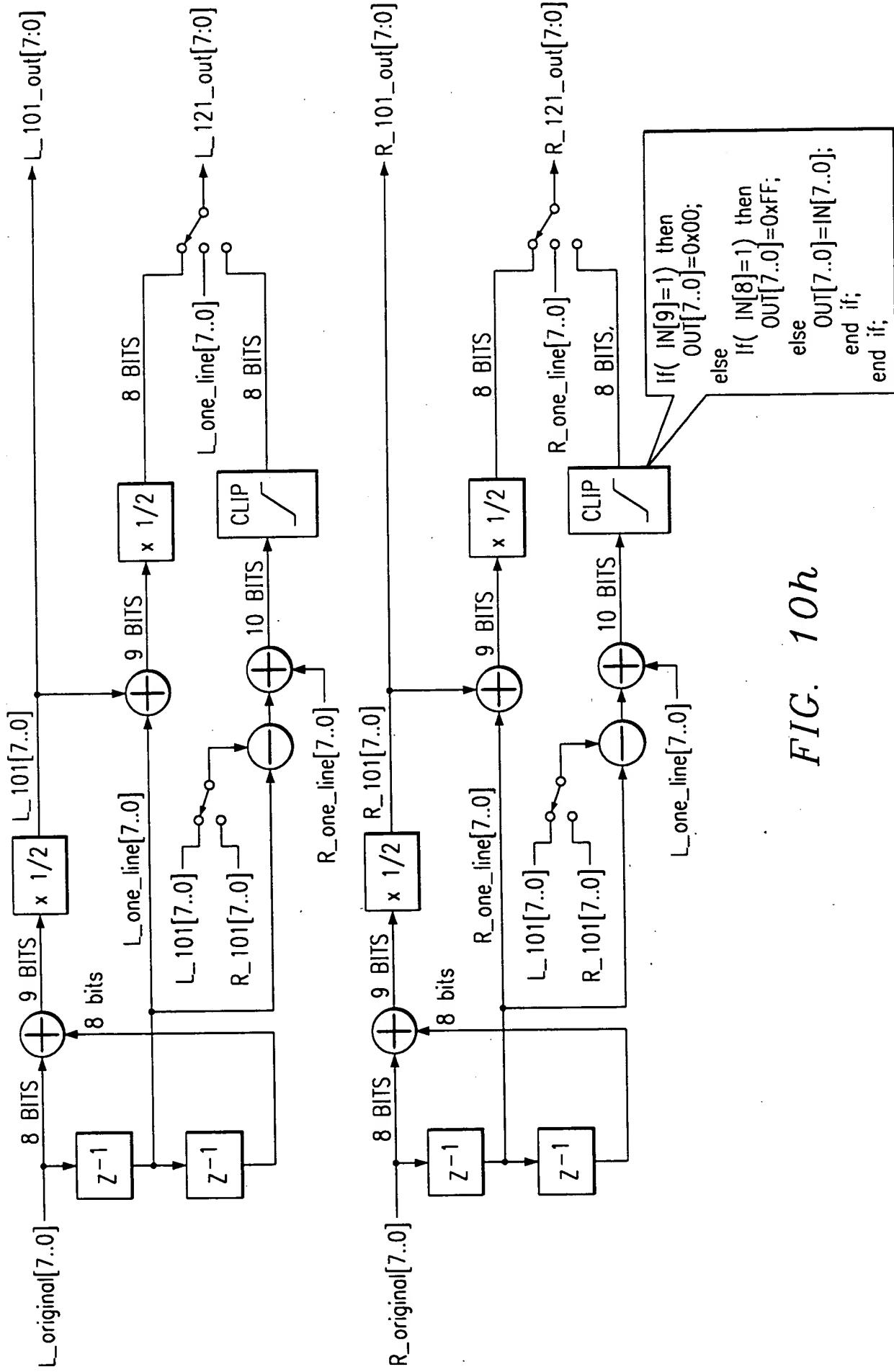


FIG. 10h

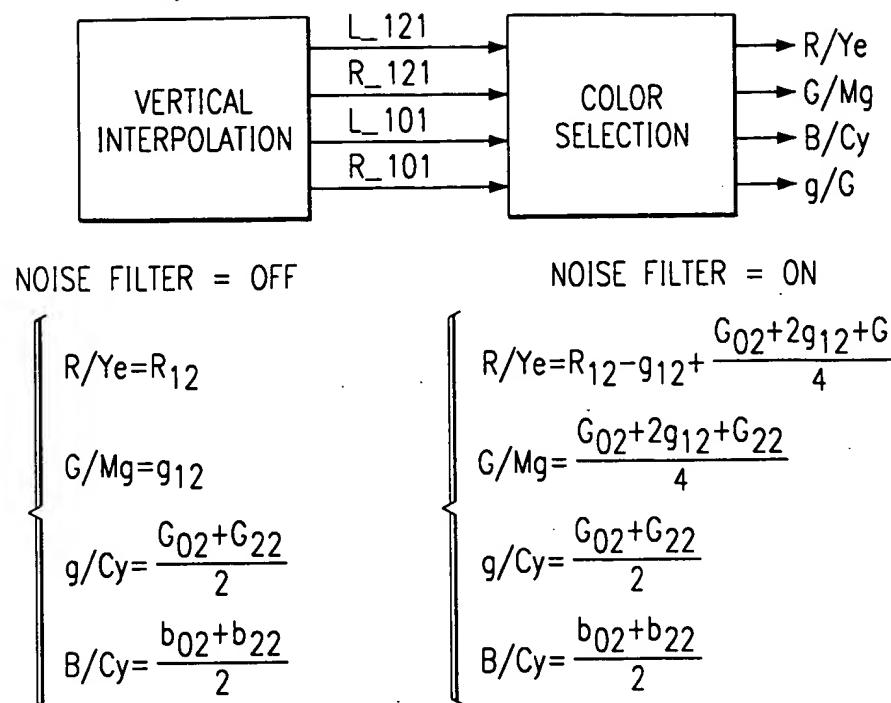


FIG. 10i

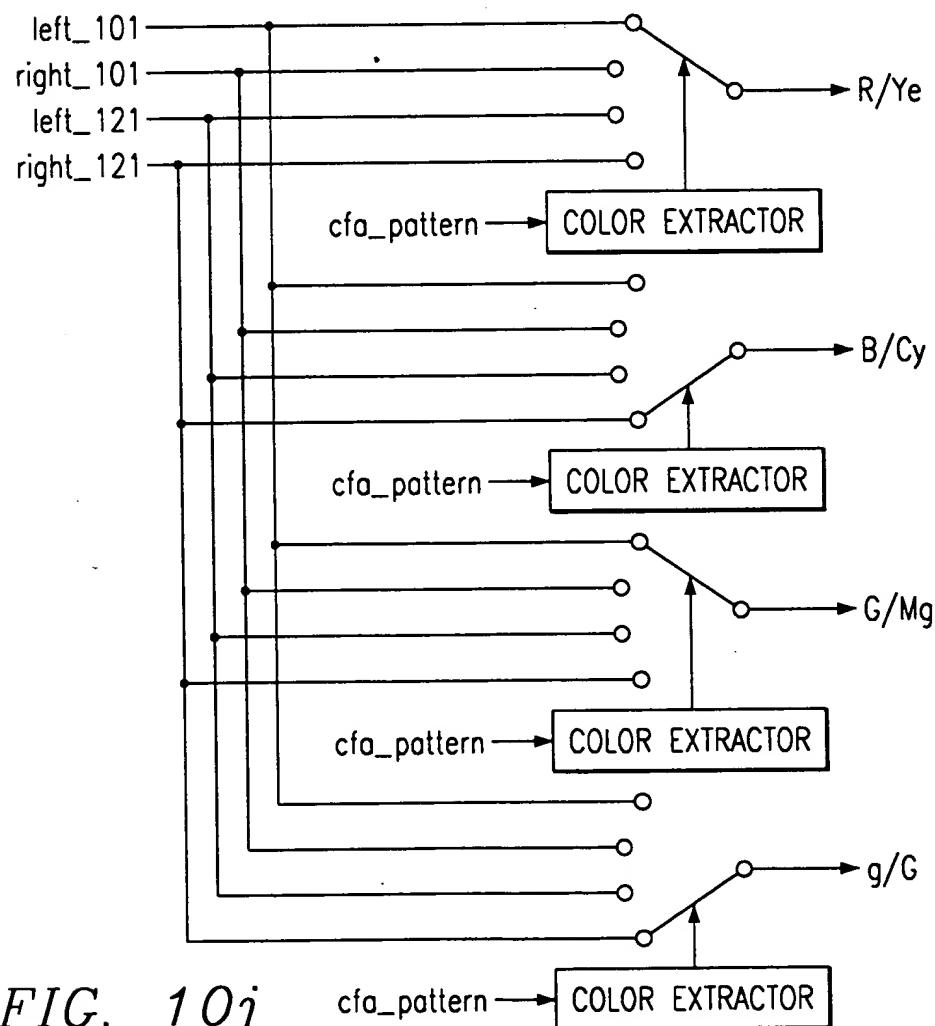
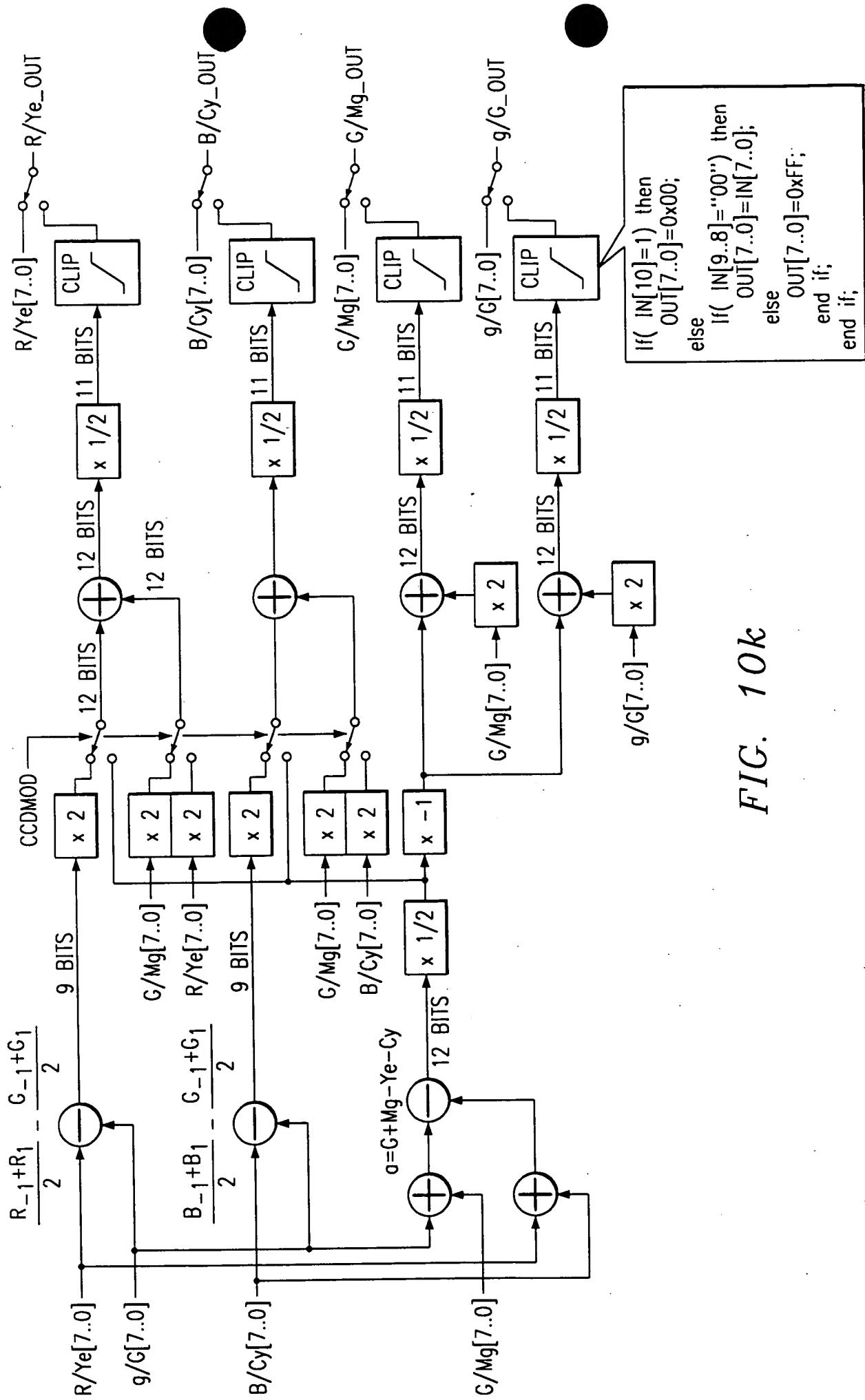


FIG. 10j

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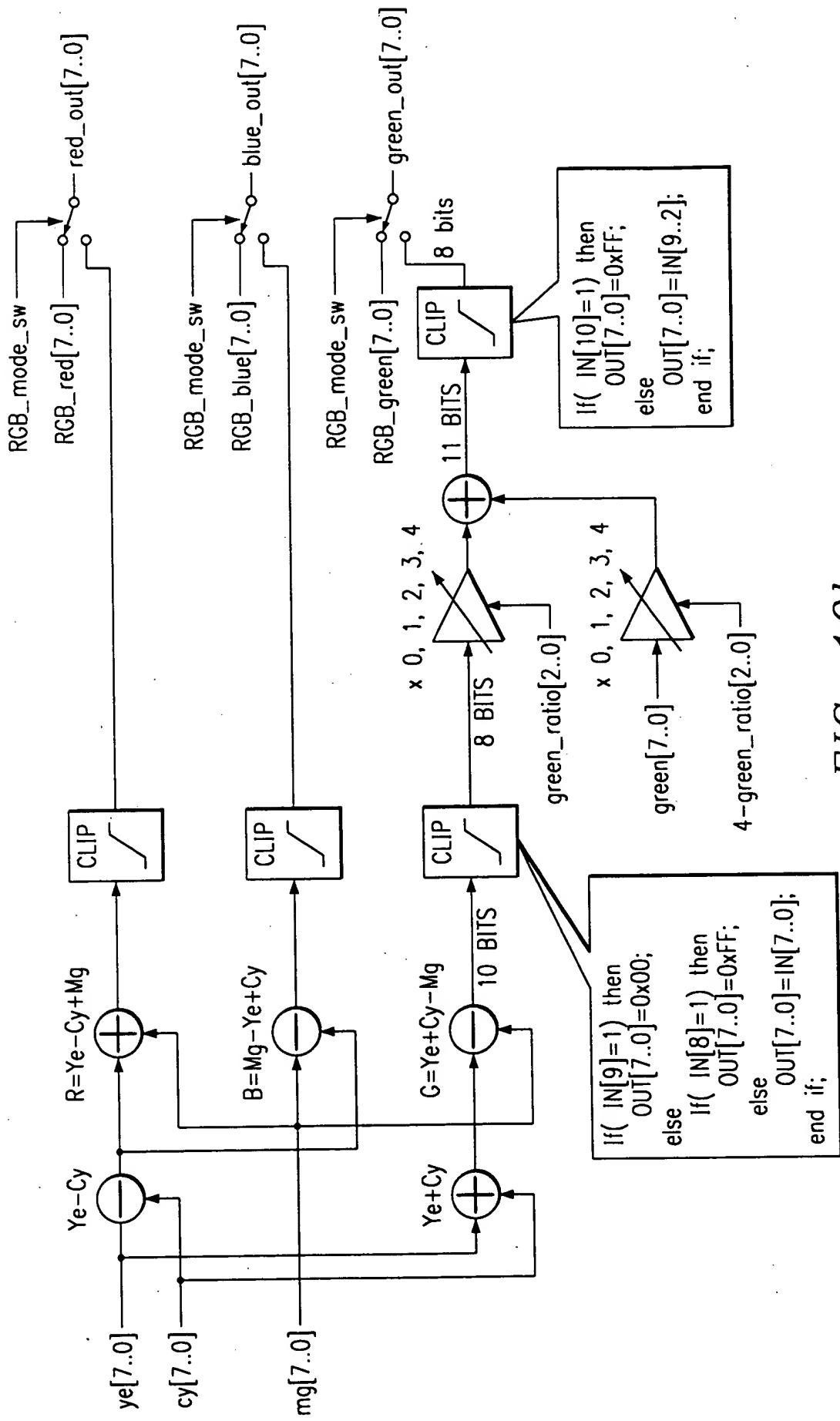


FIG. 10l

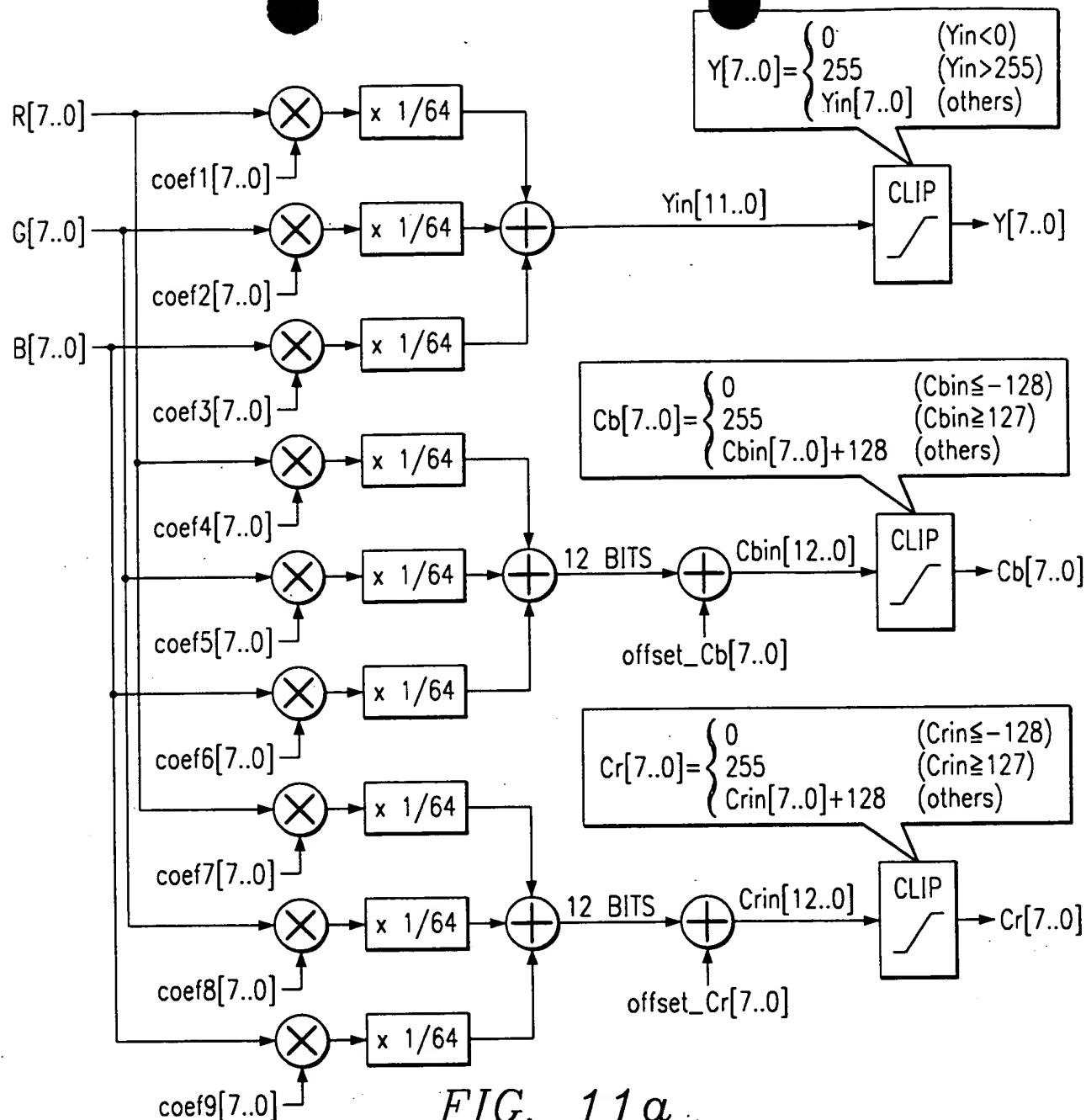


FIG. 11a

OUTPUT
ENHANCEMENT SIGNAL

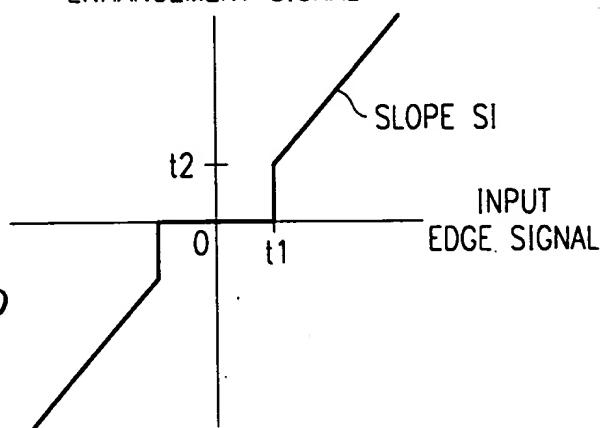
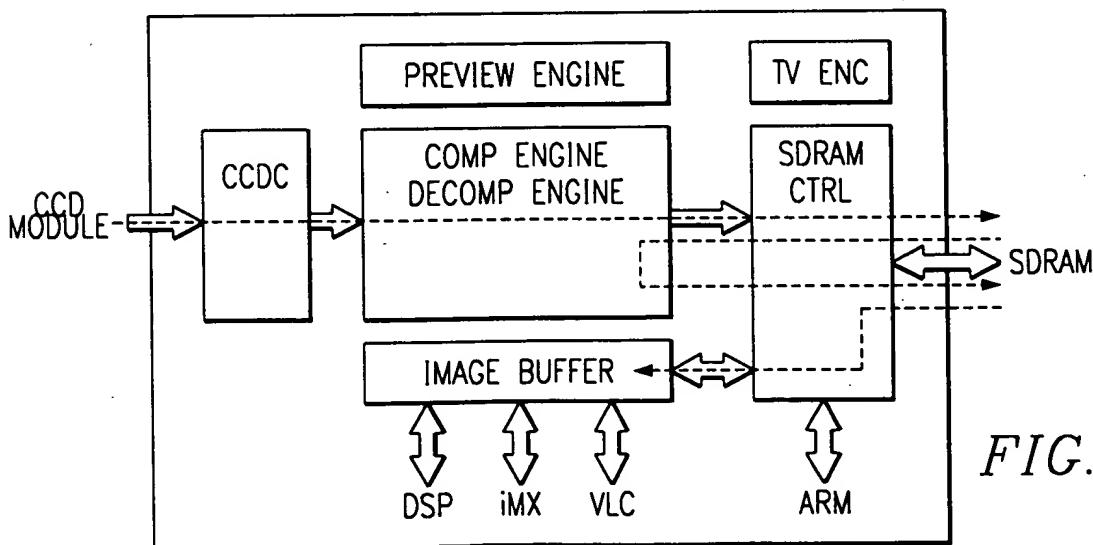
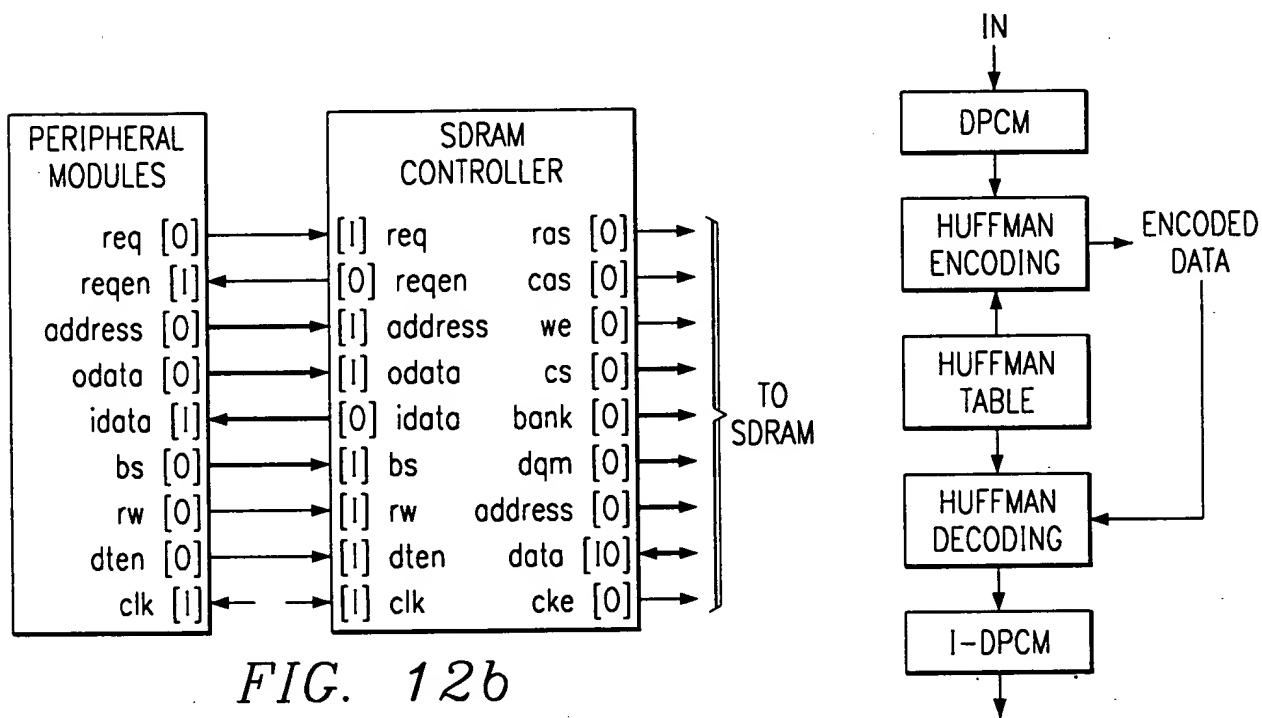
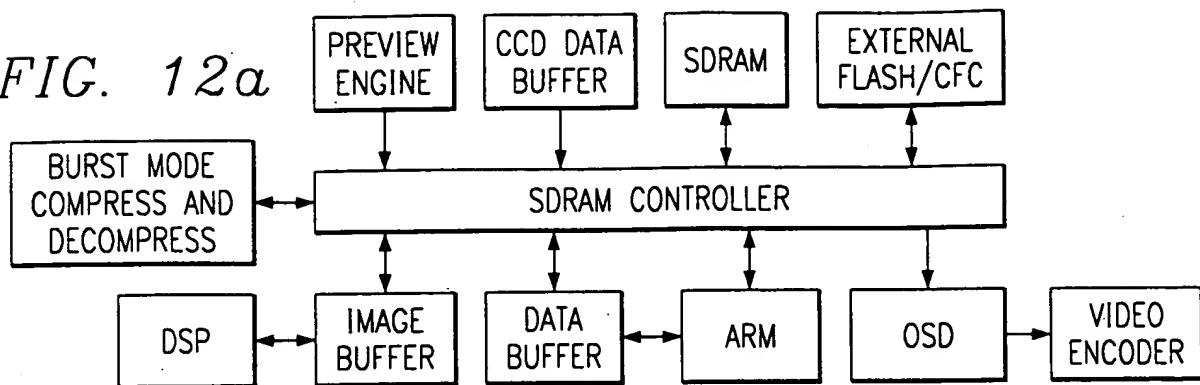
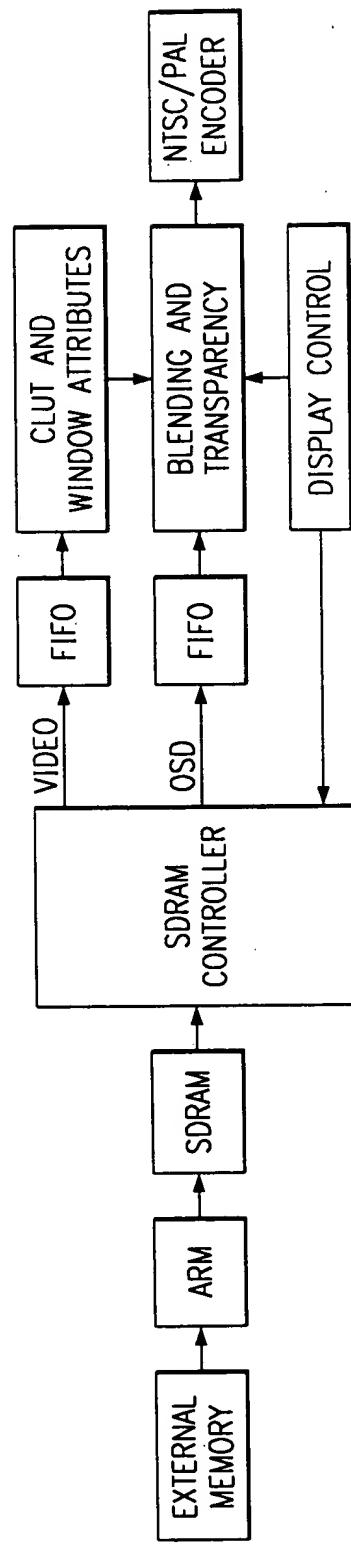
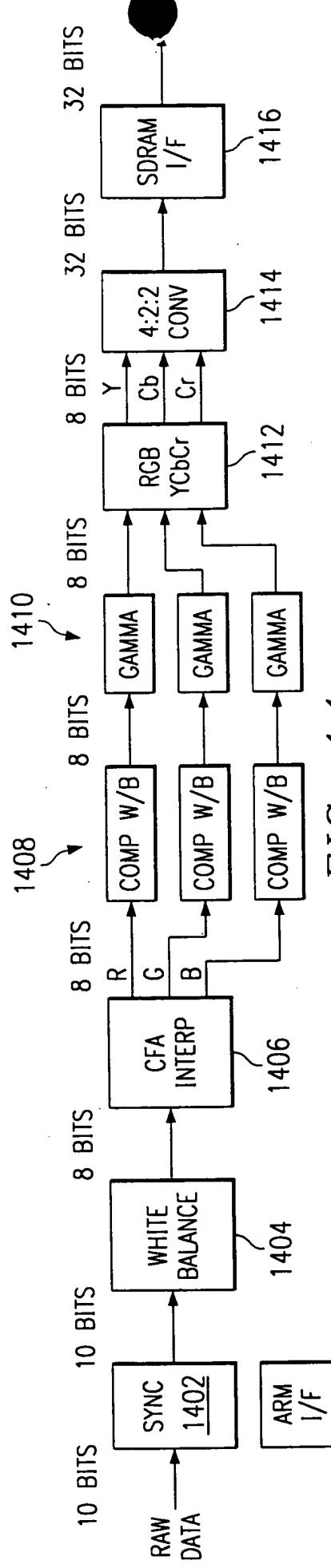


FIG. 11b

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FIG. 12a





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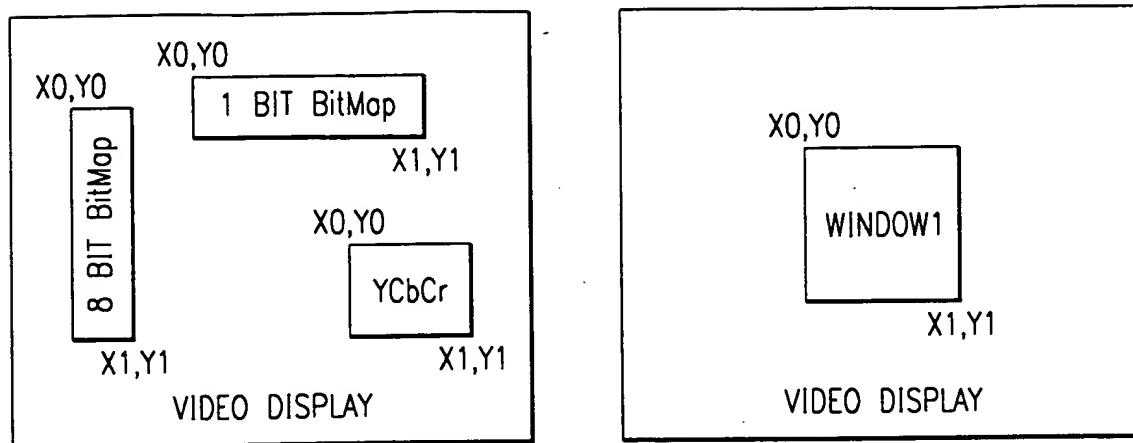


FIG. 16

FIG. 17

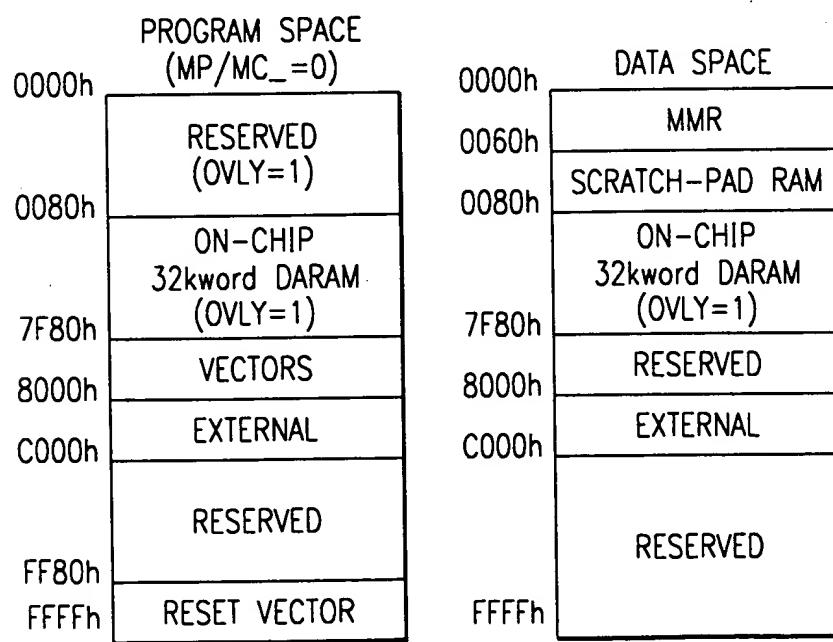
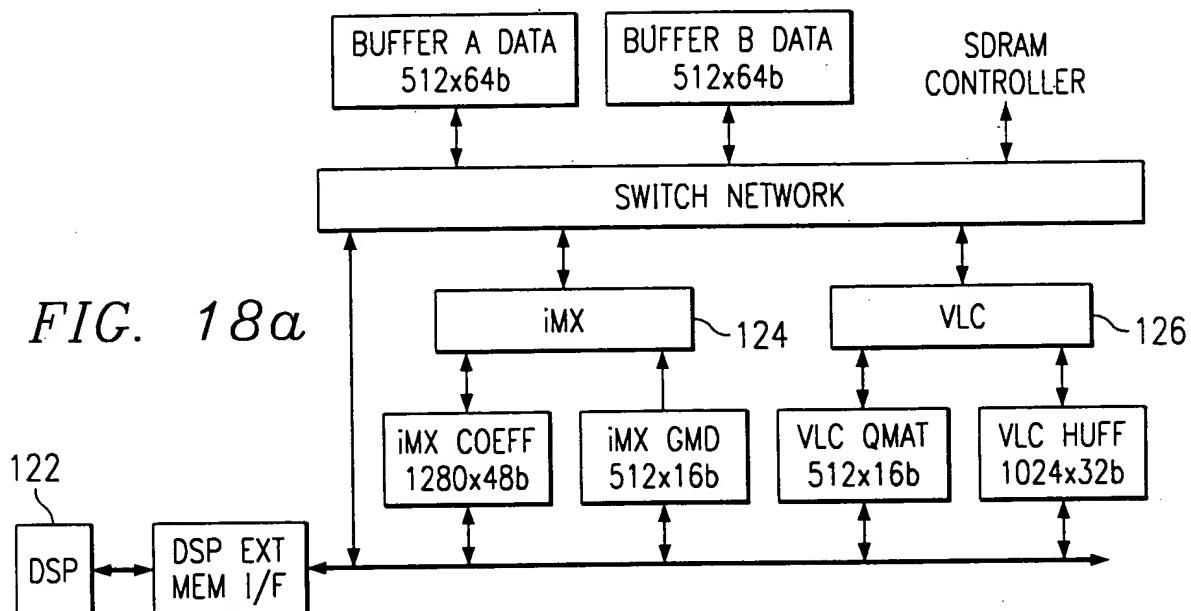
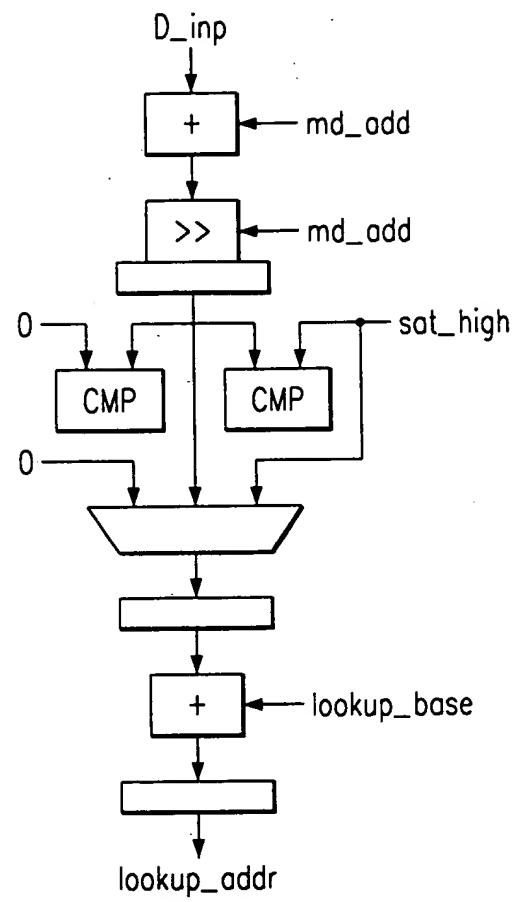
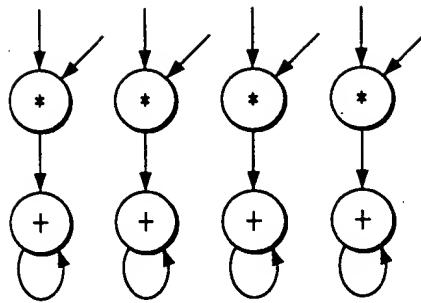
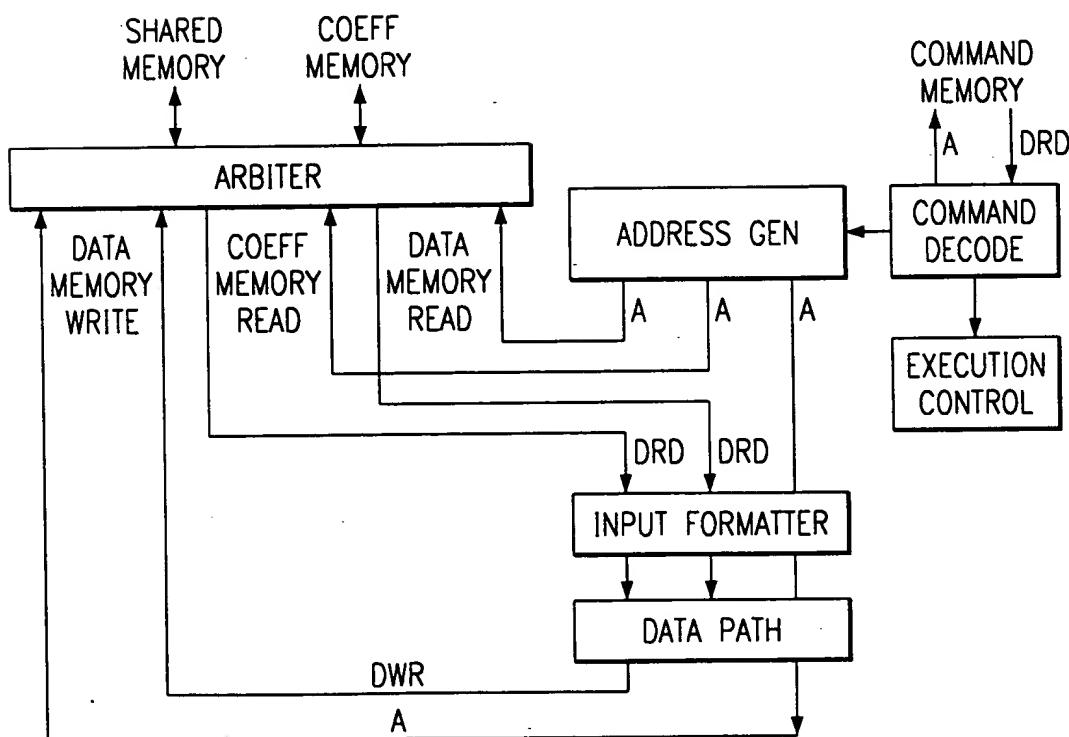


FIG. 18b



03000000000000000000000000000000



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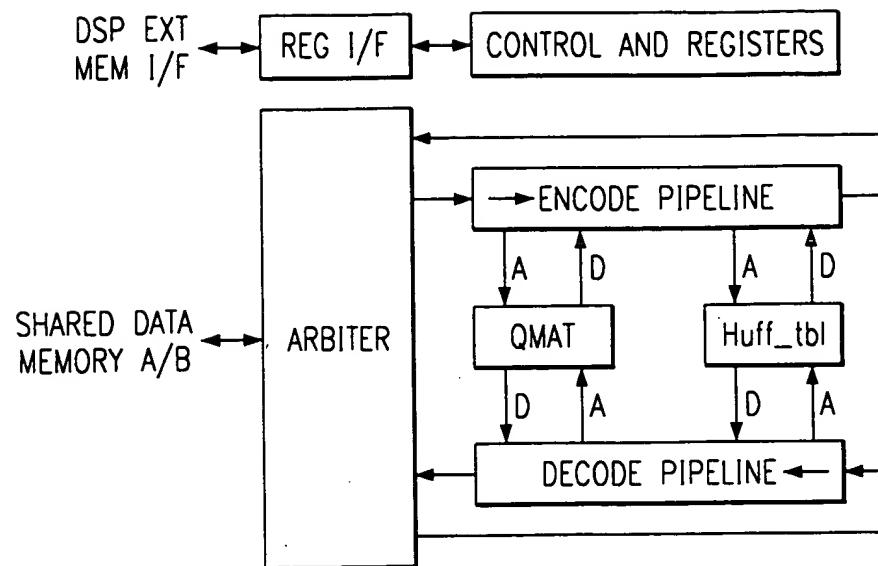


FIG. 22

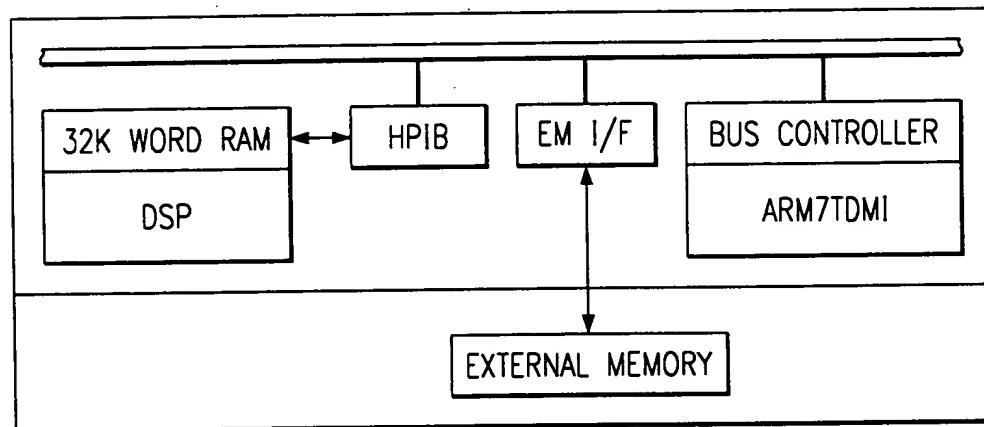


FIG. 23a

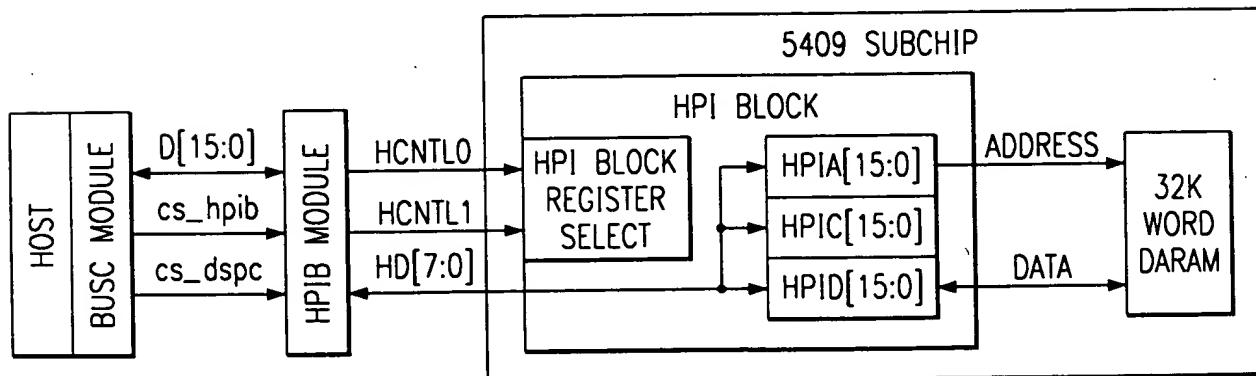


FIG. 23b

23 06 37

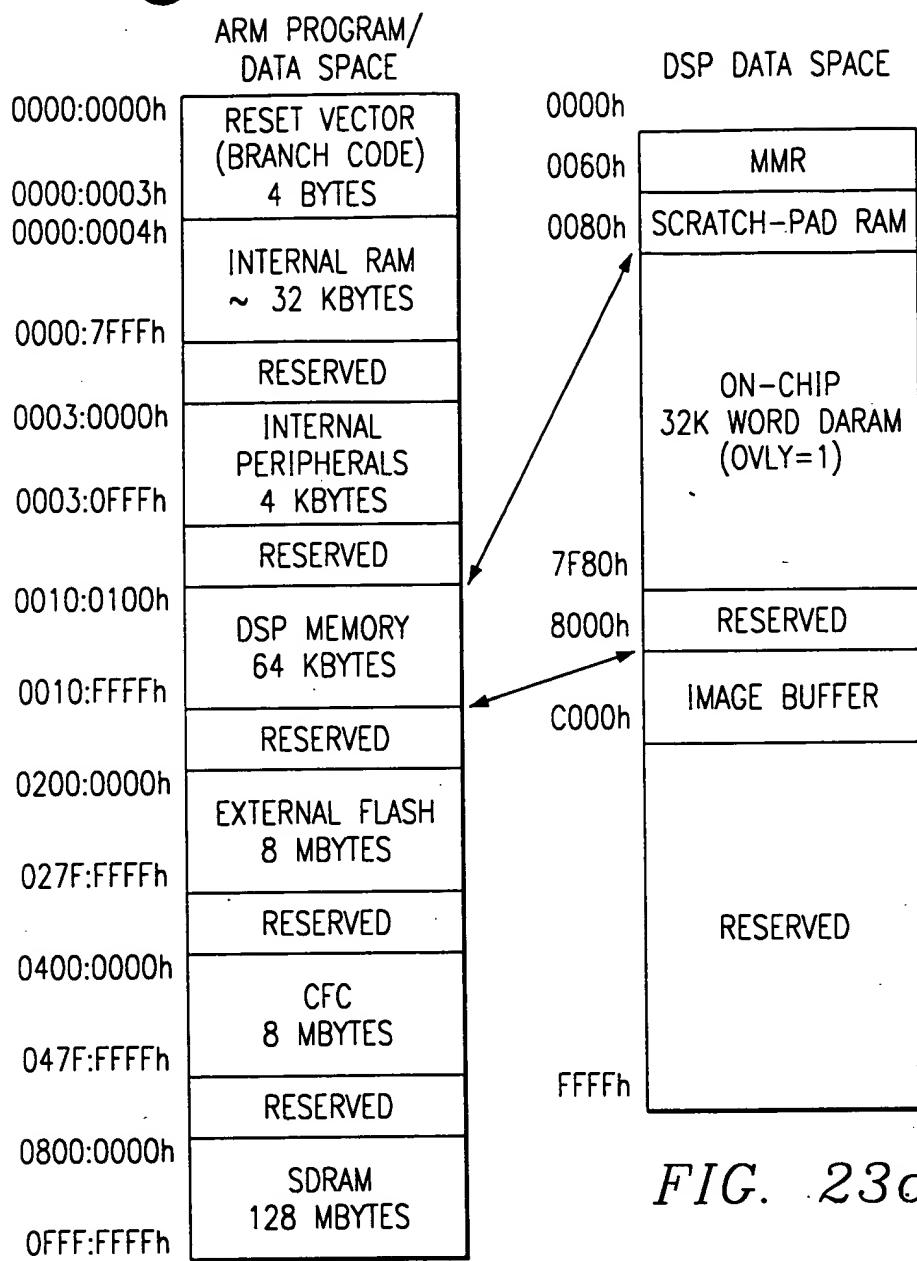


FIG. 23c

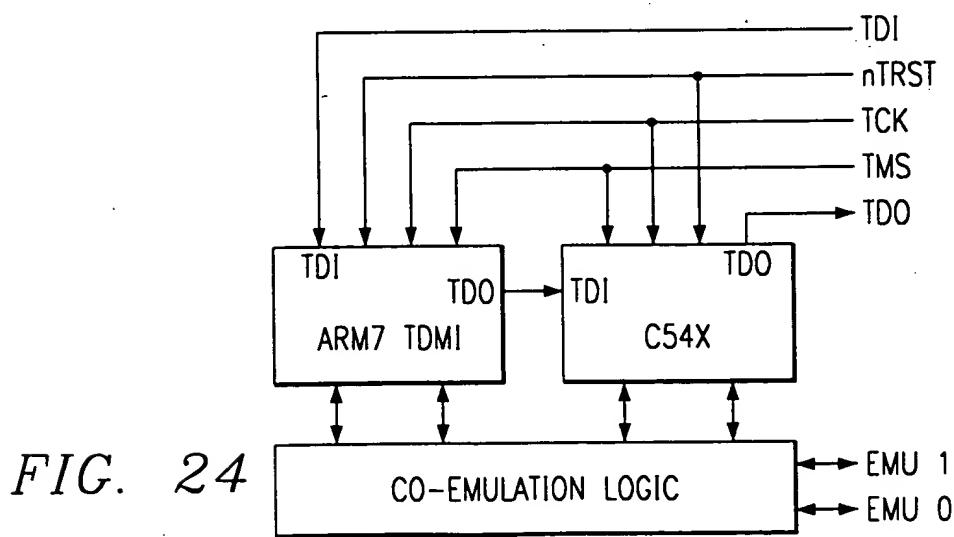


FIG. 24

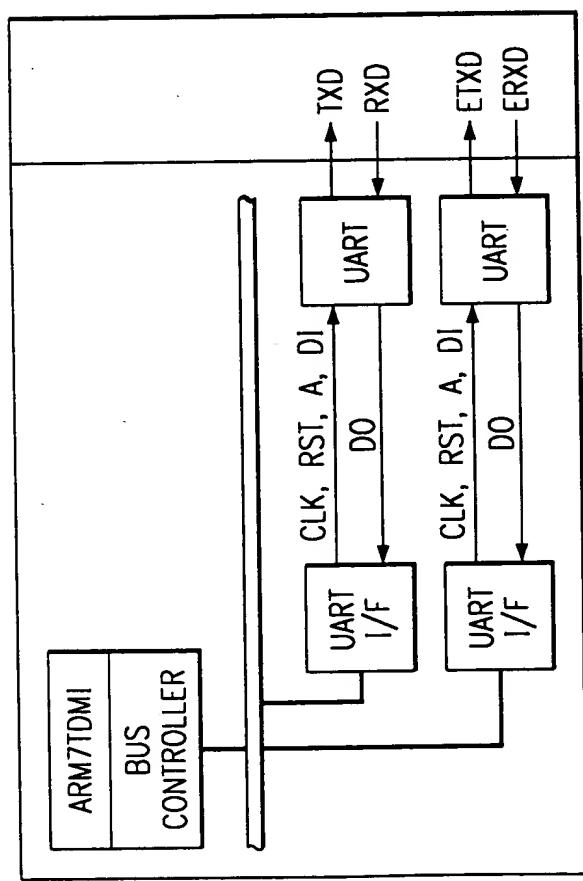


FIG. 25

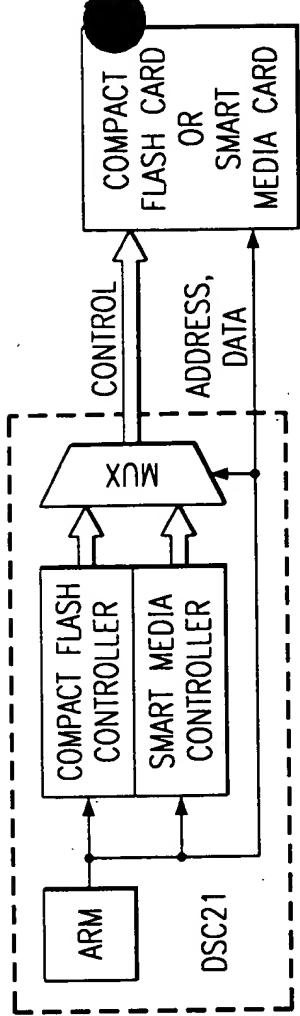
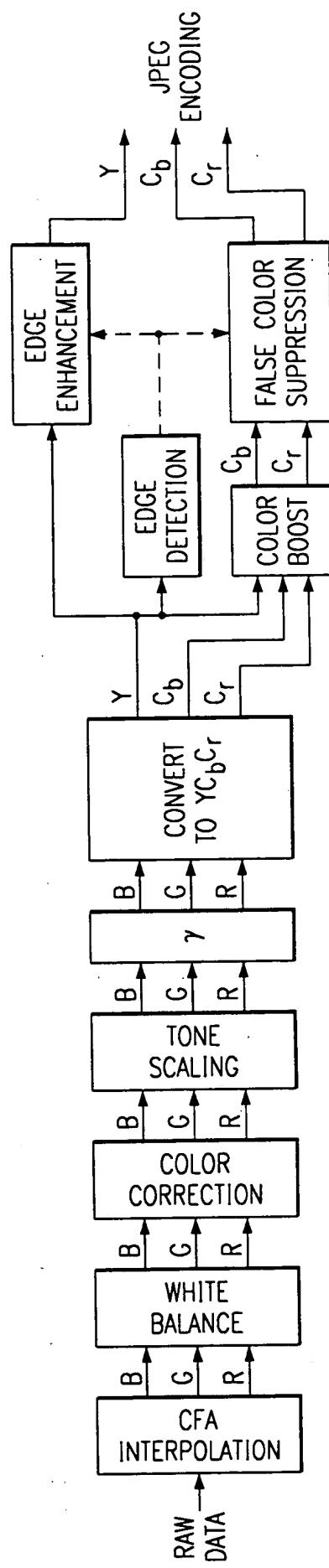


FIG. 26



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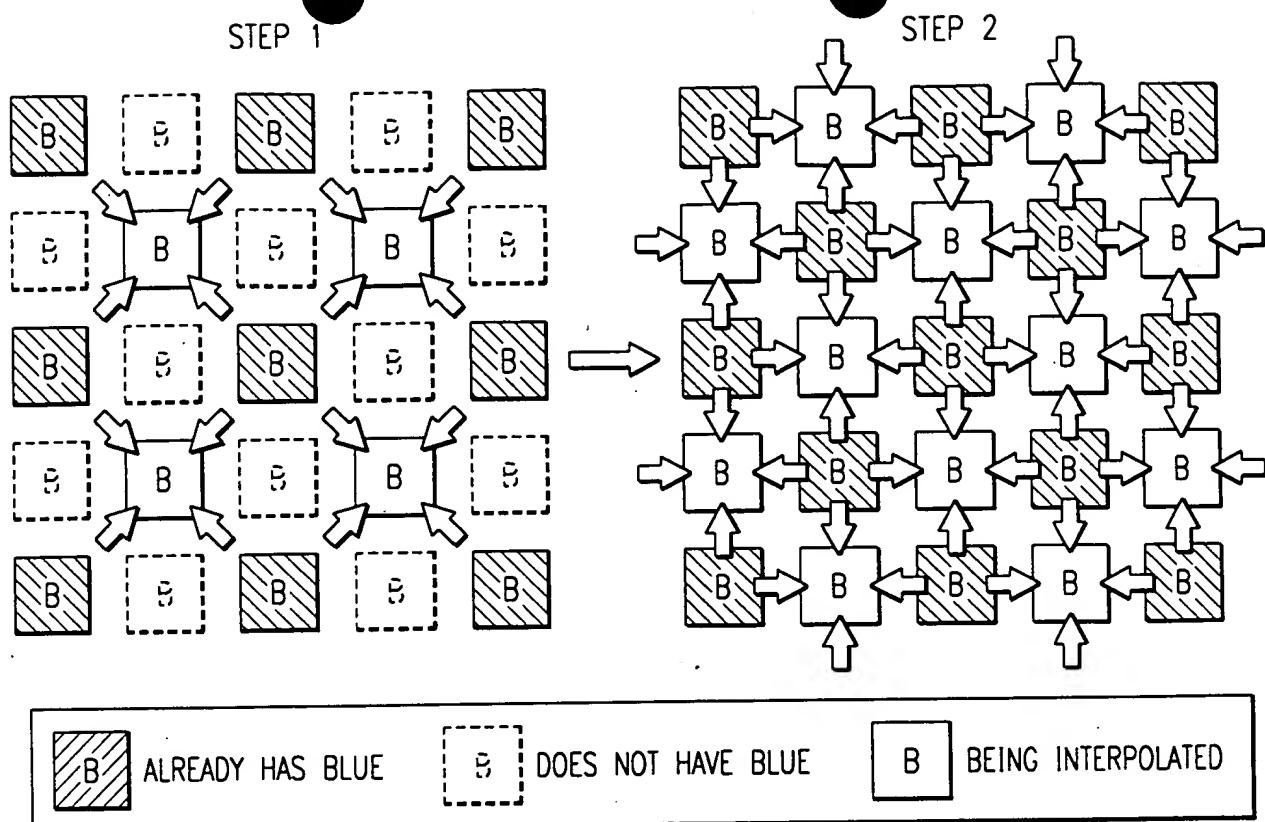
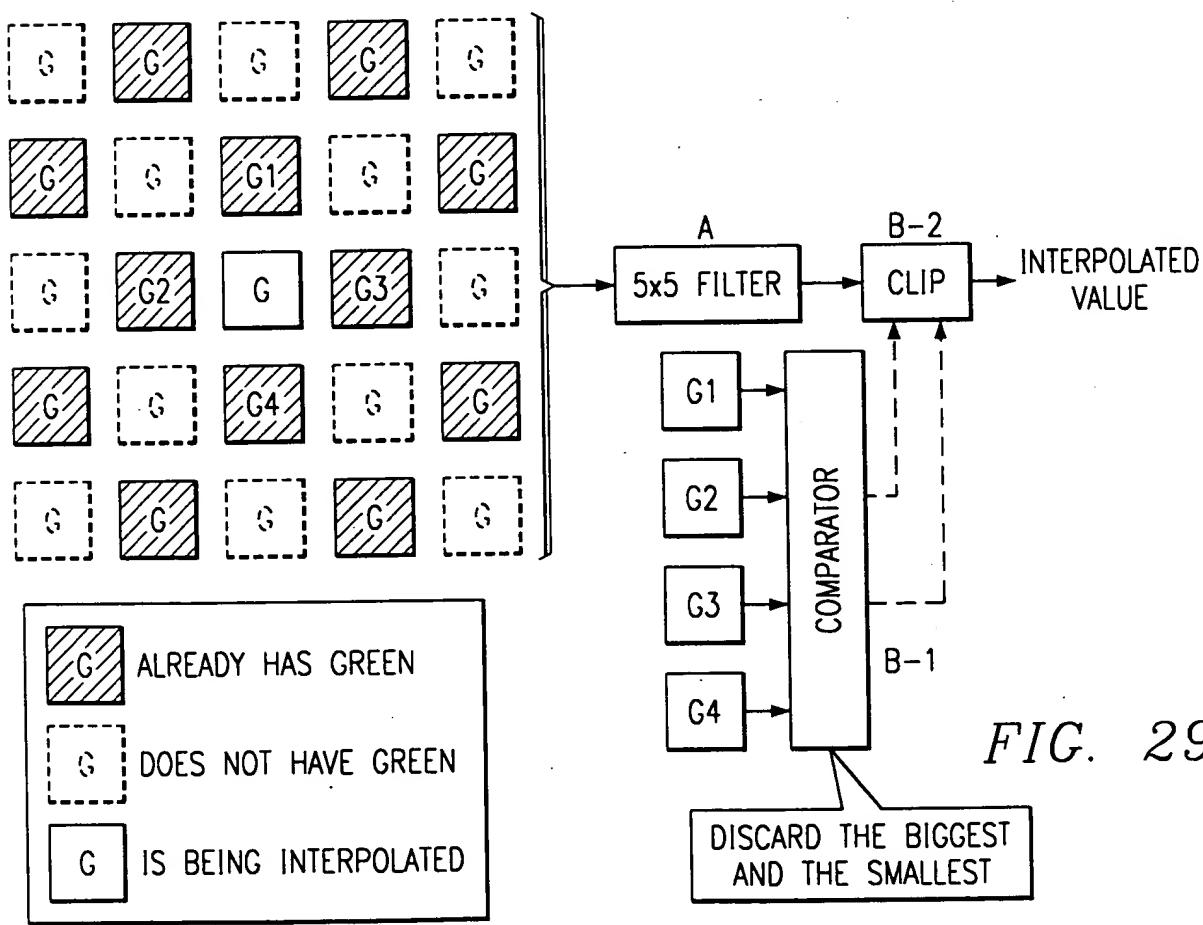
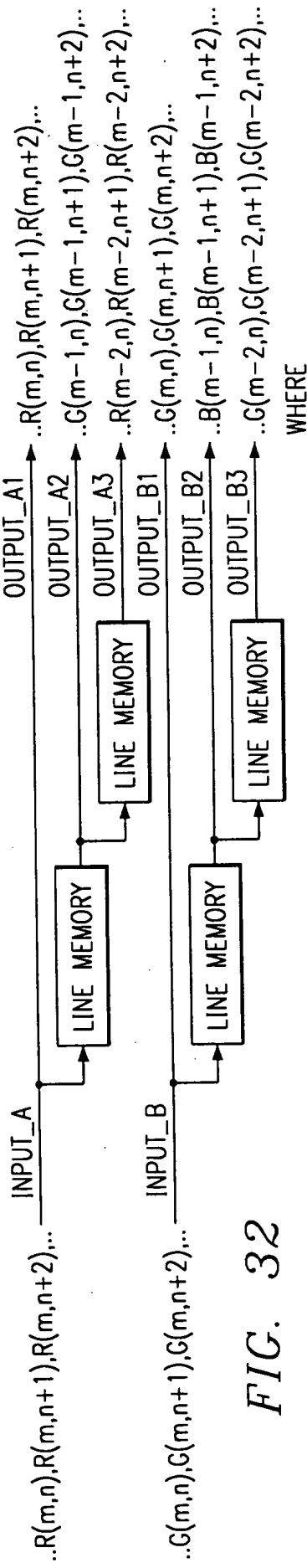
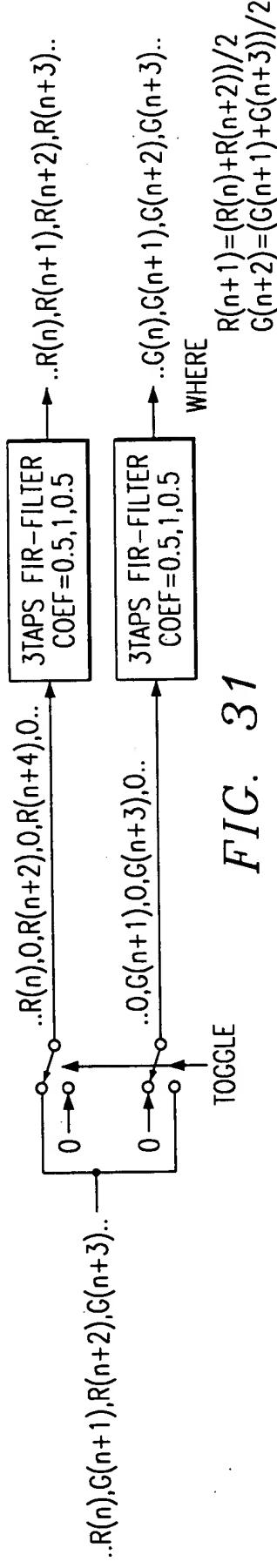
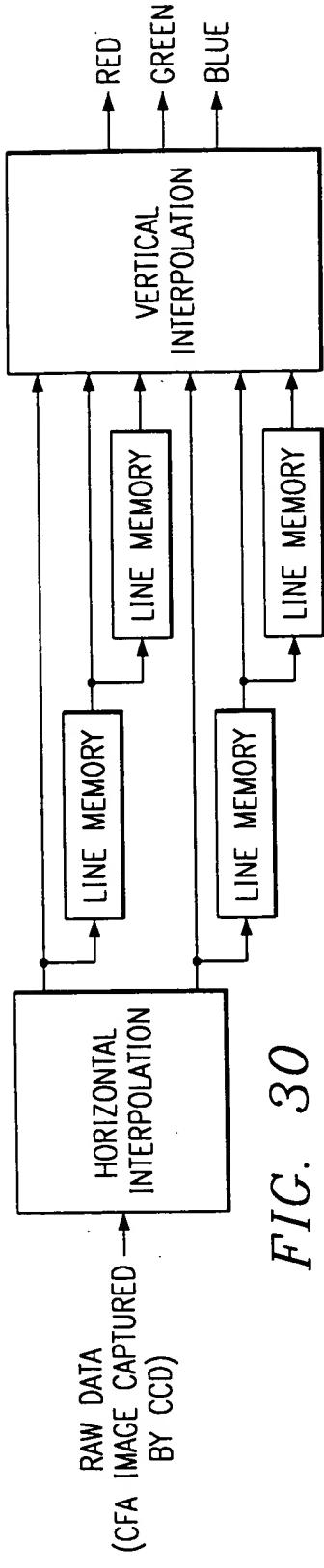


FIG. 28





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G(y,x) IS A DATA AT THE POSITION
"VERTICAL=y/HORIZONTAL=x"

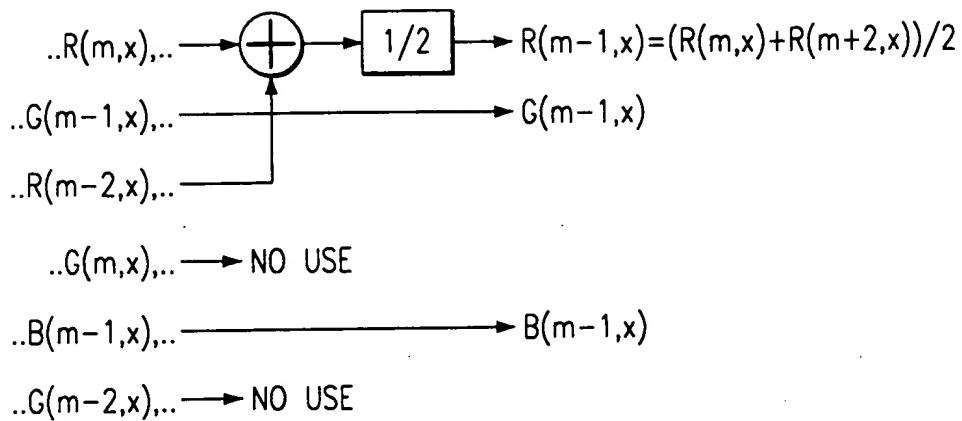


FIG. 33a

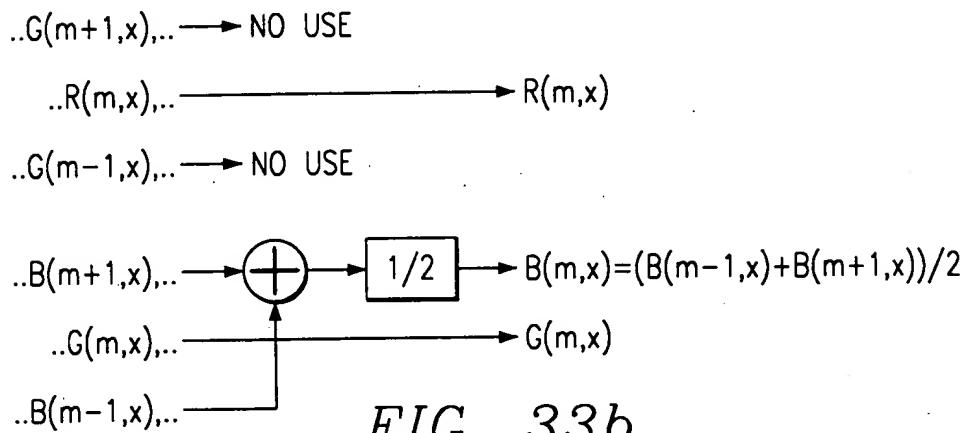


FIG. 33b

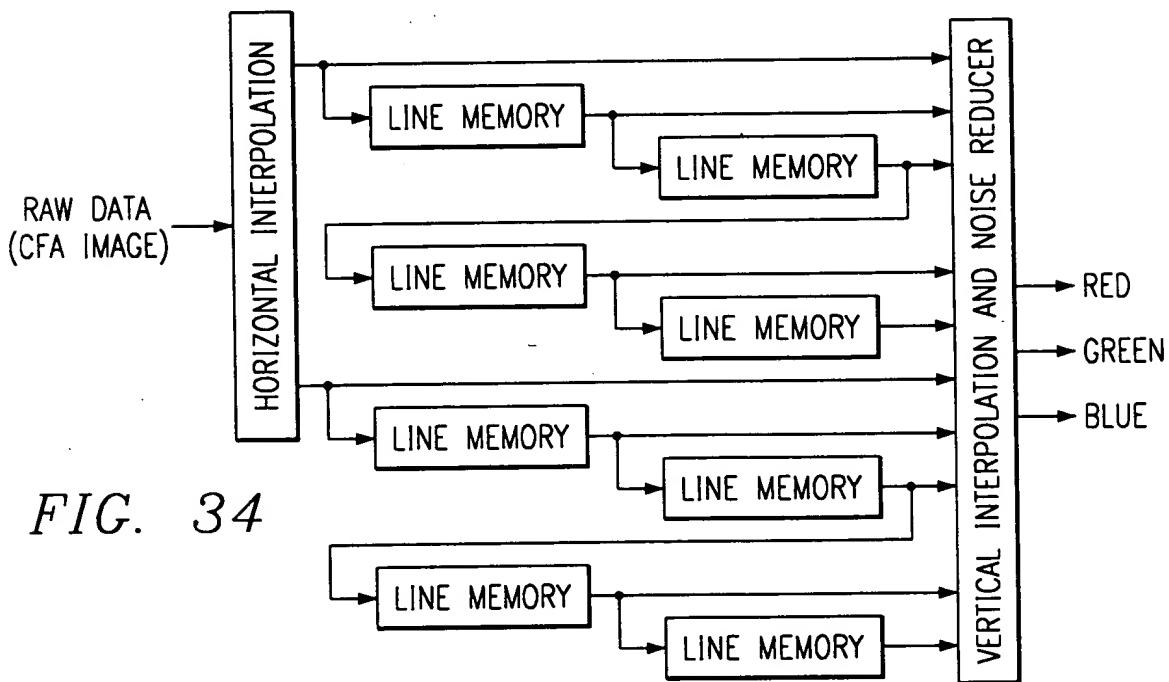


FIG. 34

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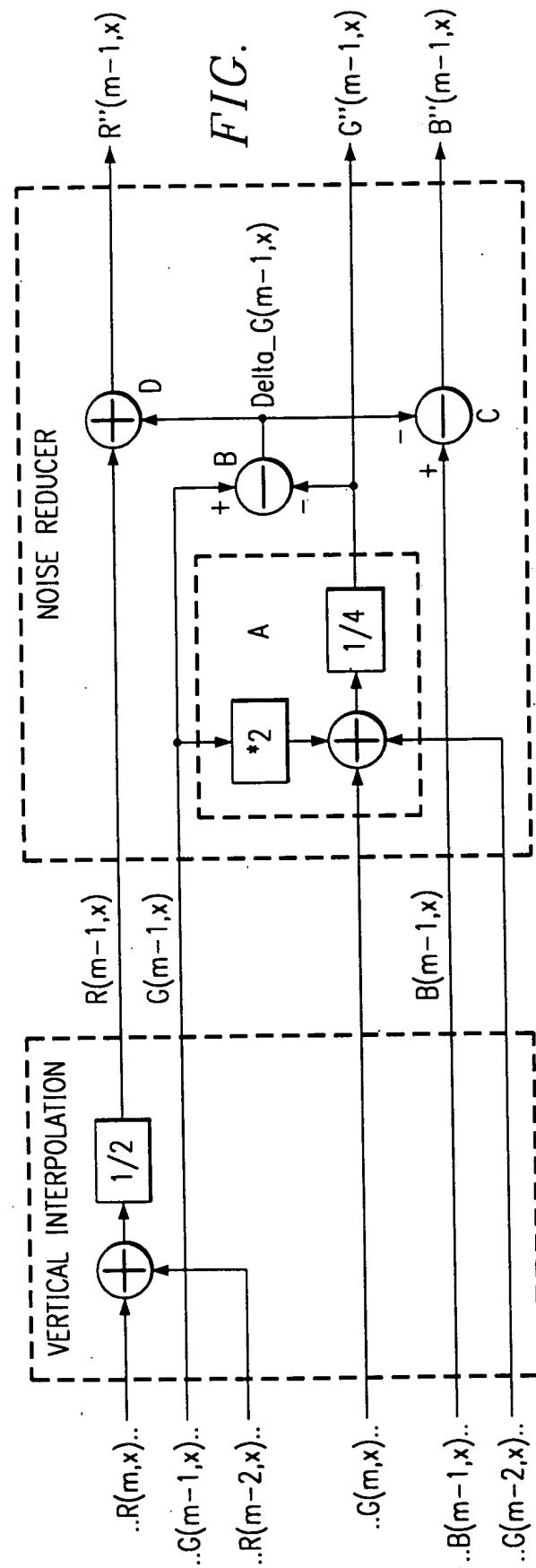


FIG. 35a

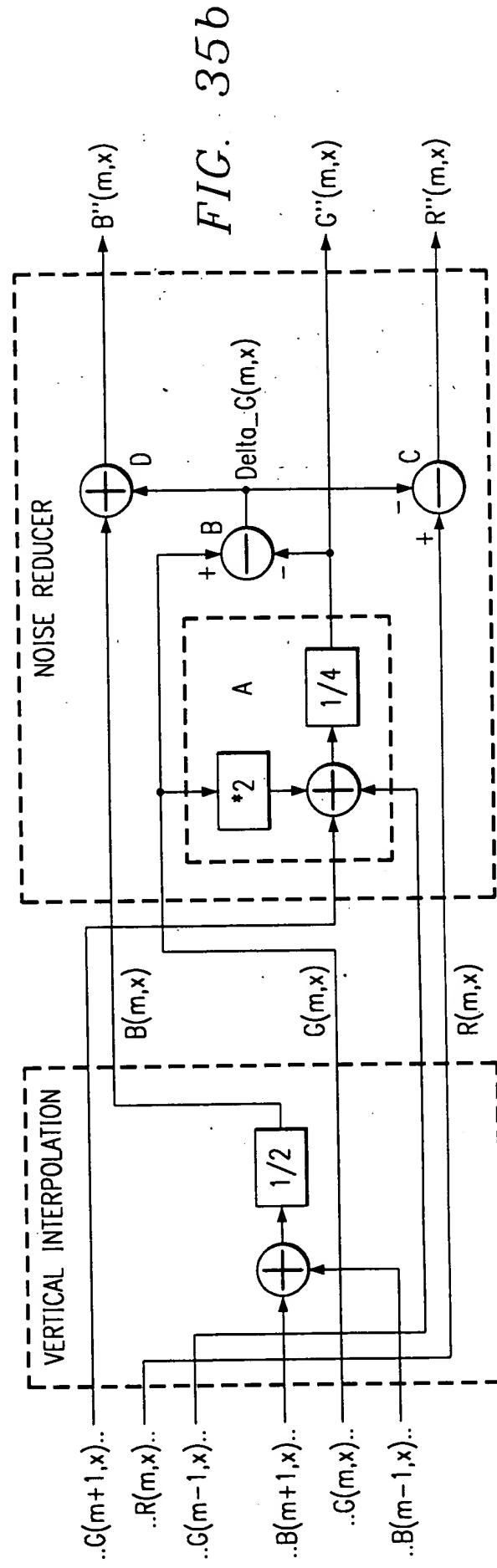
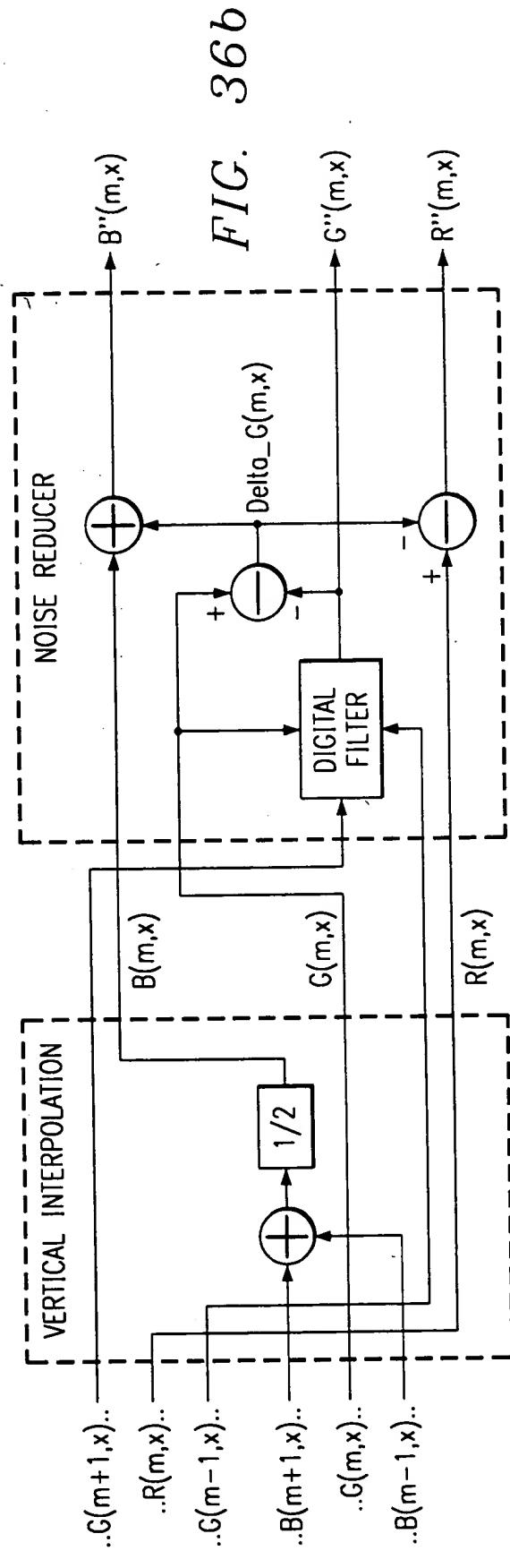
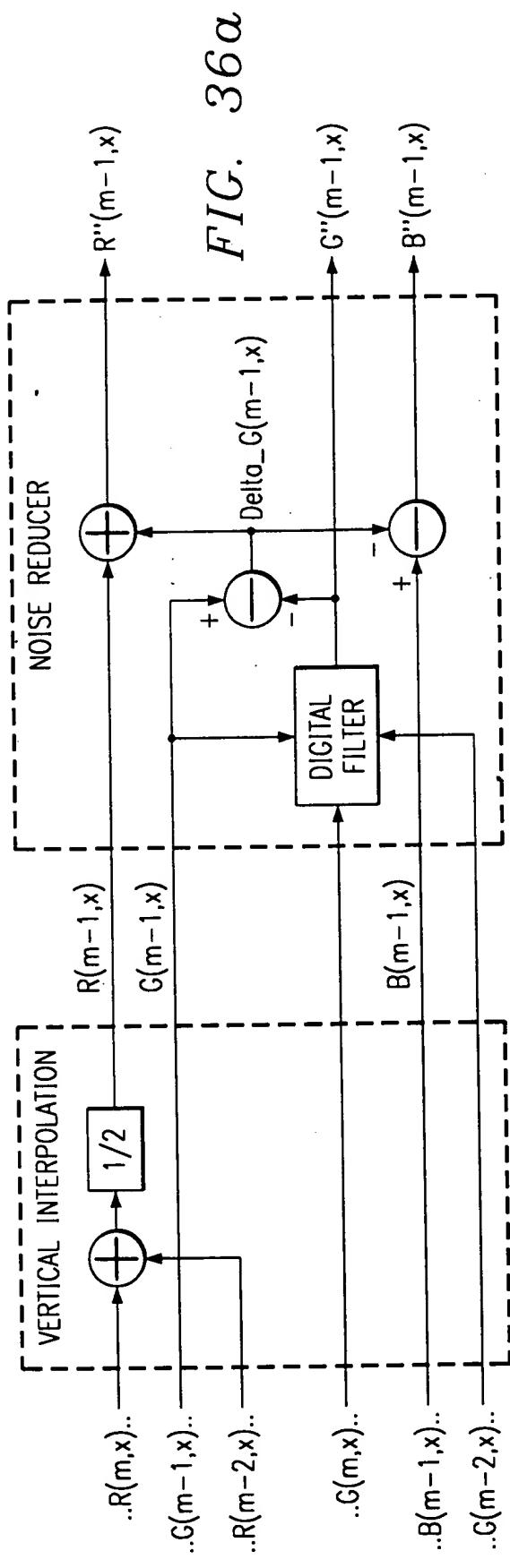


FIG. 356



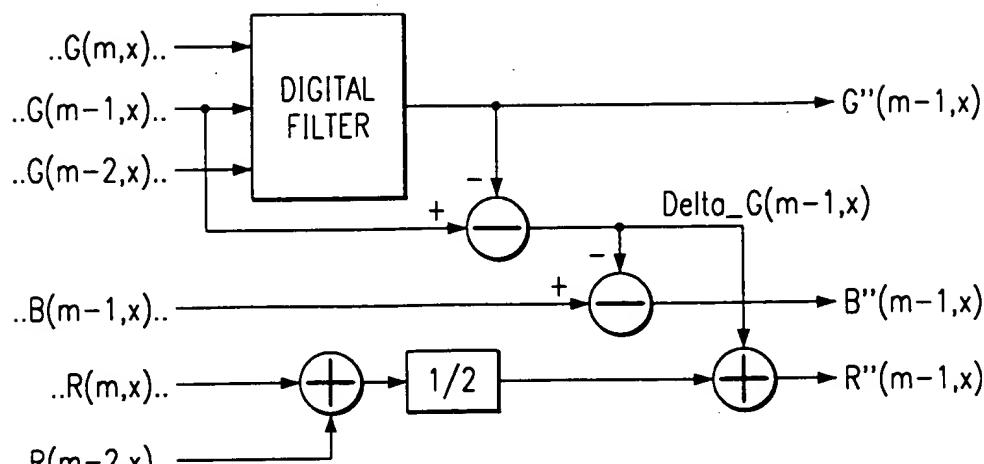


FIG. 37a

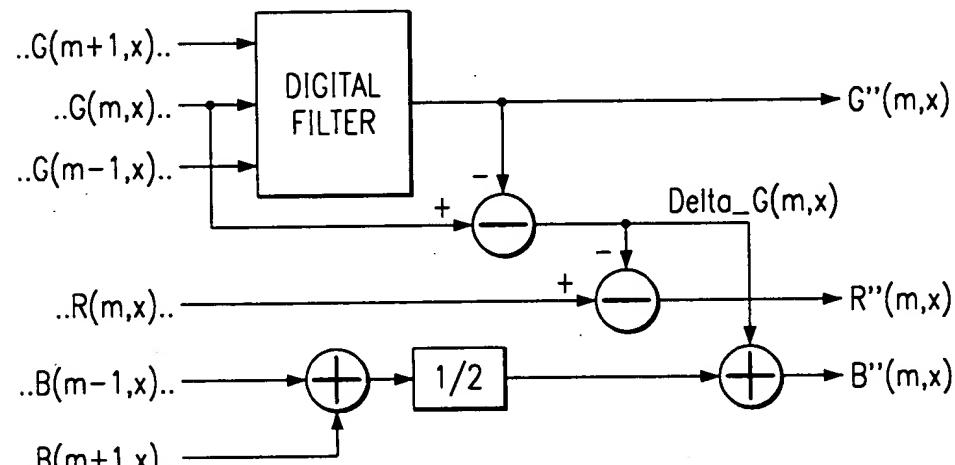


FIG. 37b

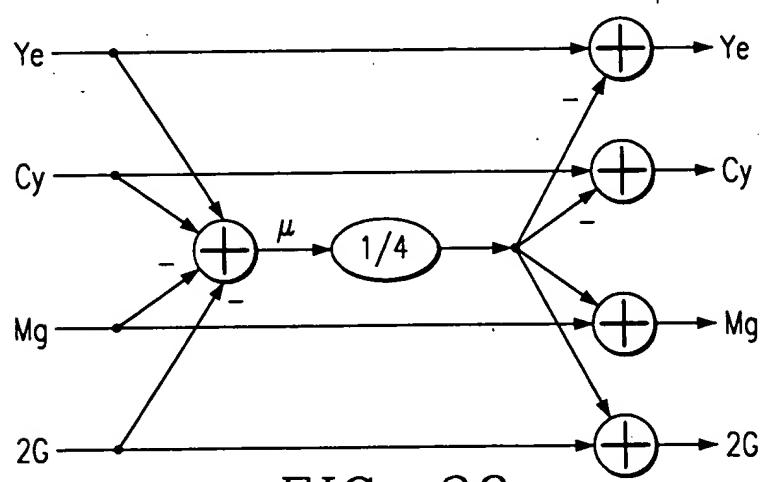


FIG. 38

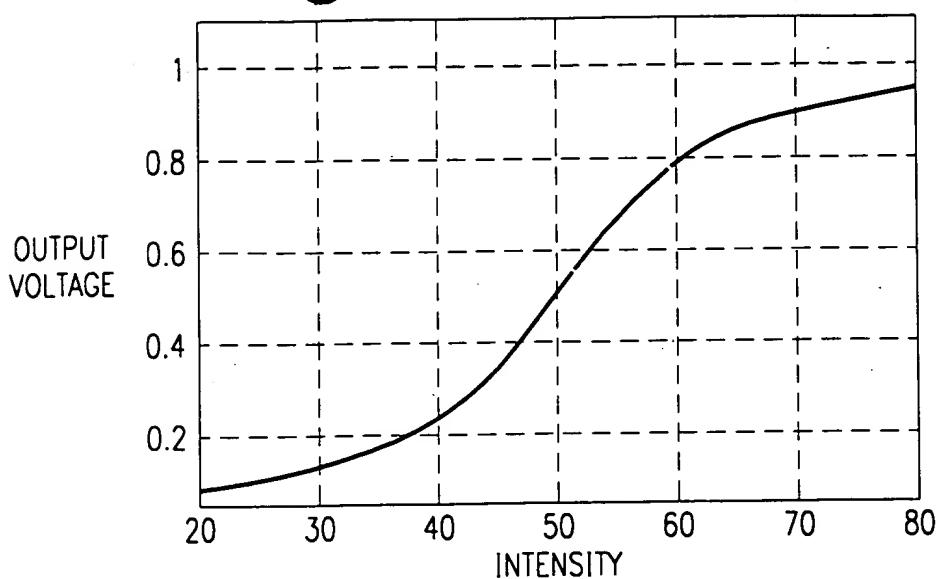


FIG. 39a

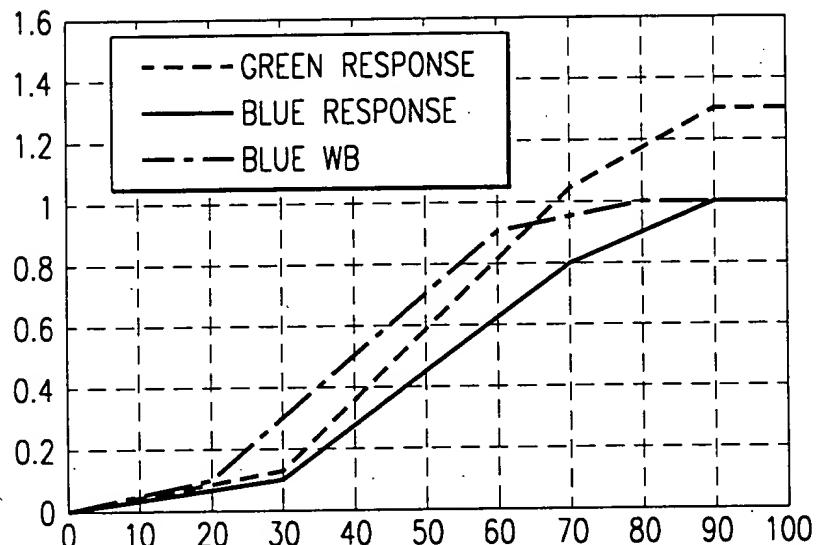


FIG. 39b

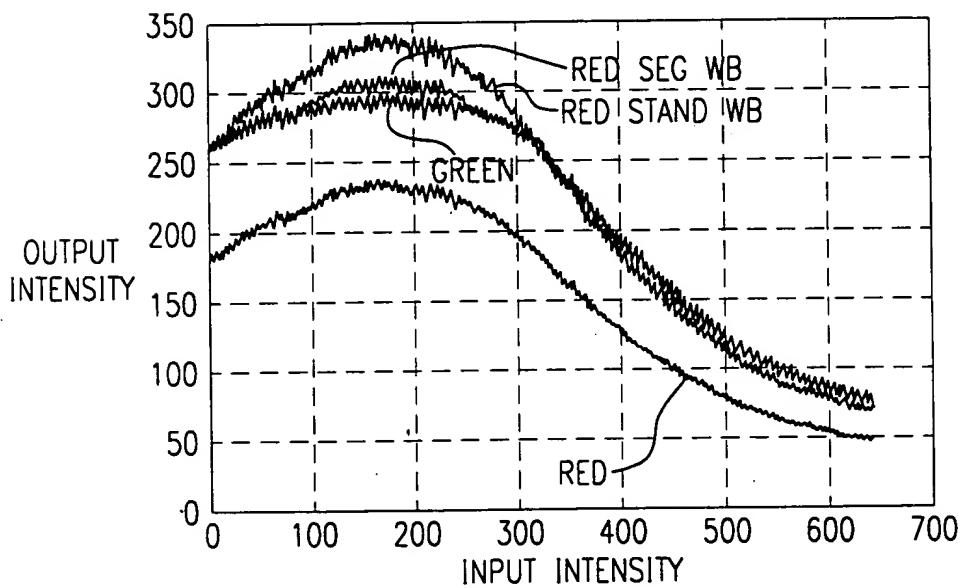


FIG. 40

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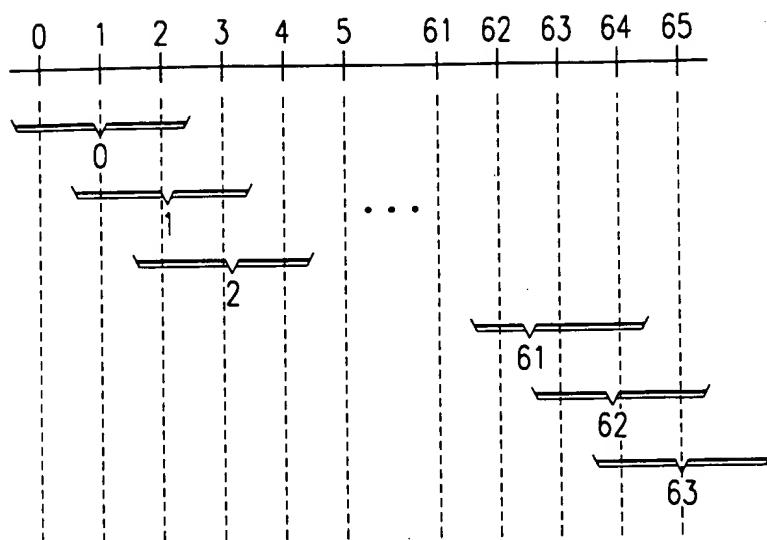


FIG. 41a

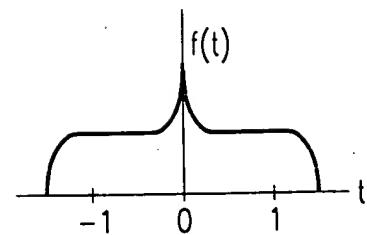


FIG. 41b

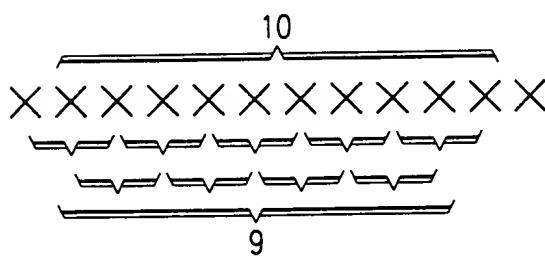


FIG. 42a

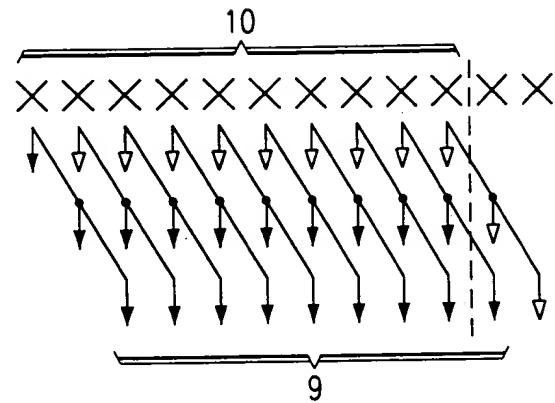


FIG. 42b

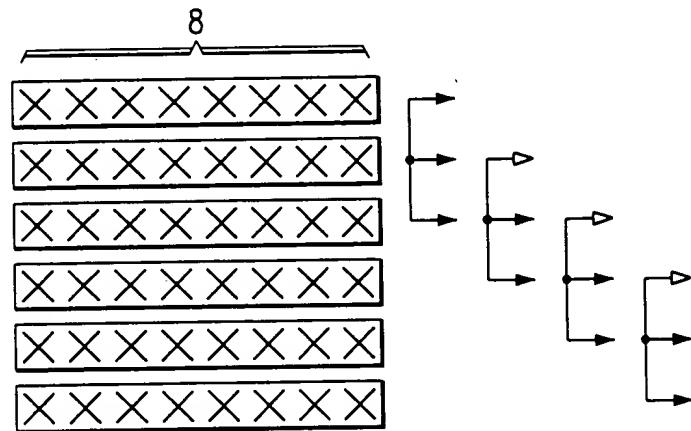


FIG. 42c

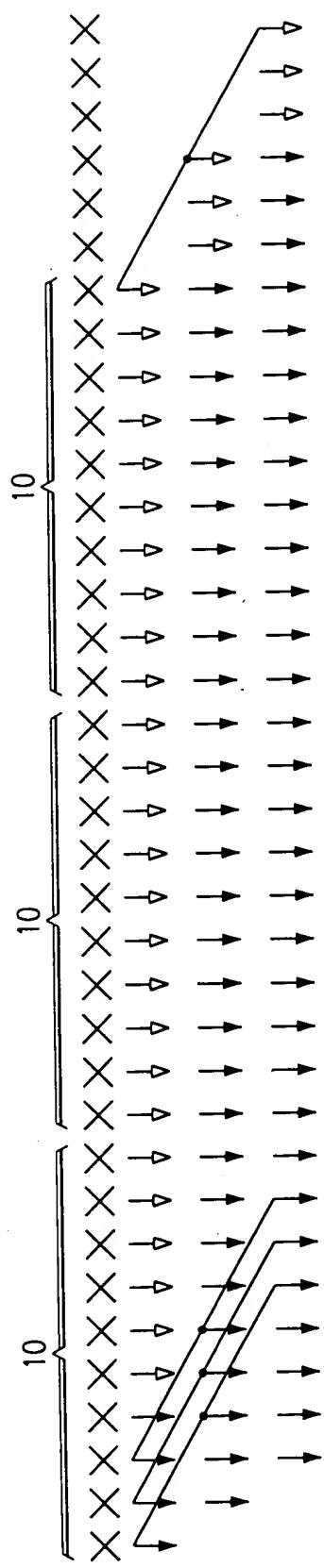


FIG. 42c

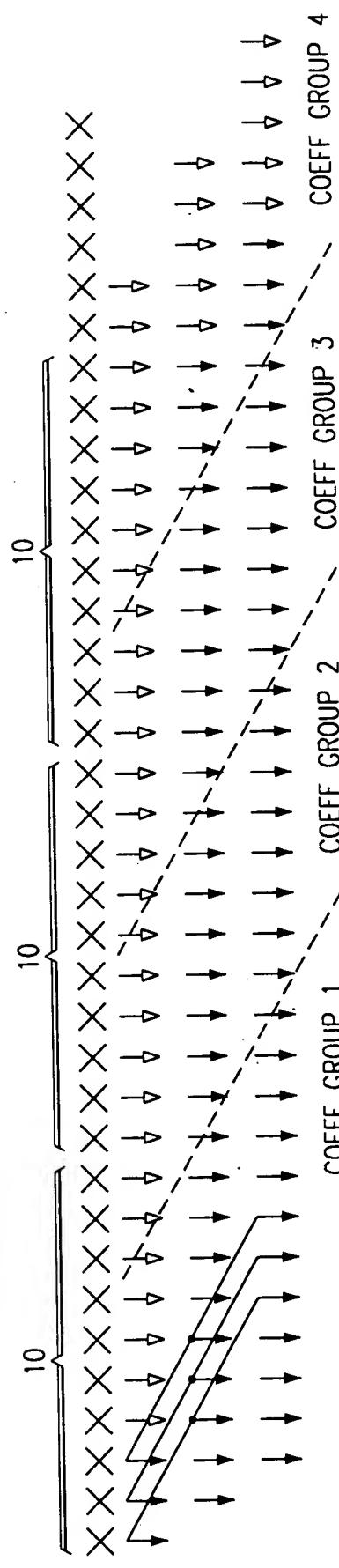


FIG. 42d

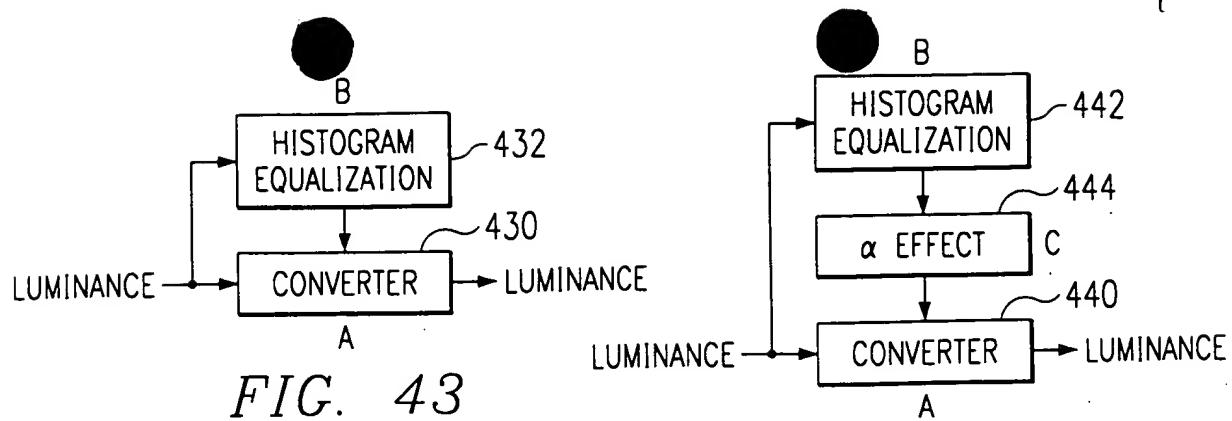


FIG. 43

FIG. 44

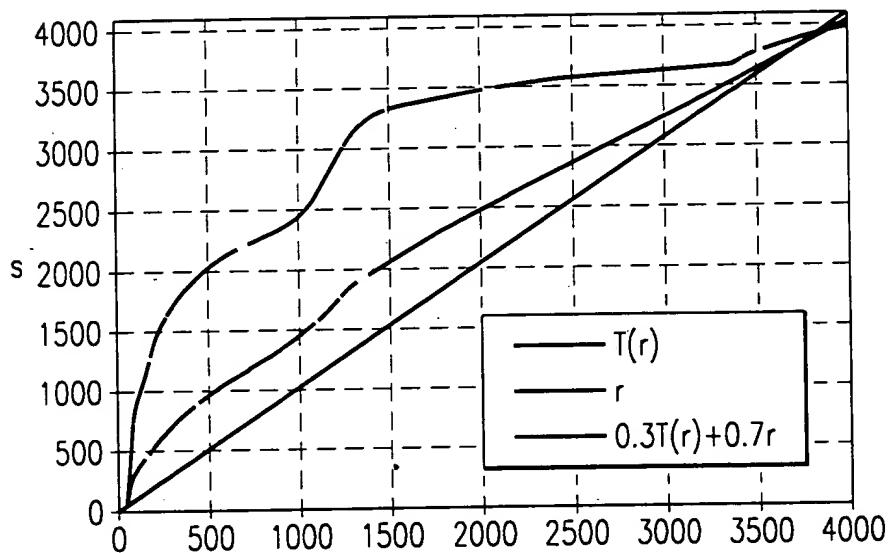


FIG. 45

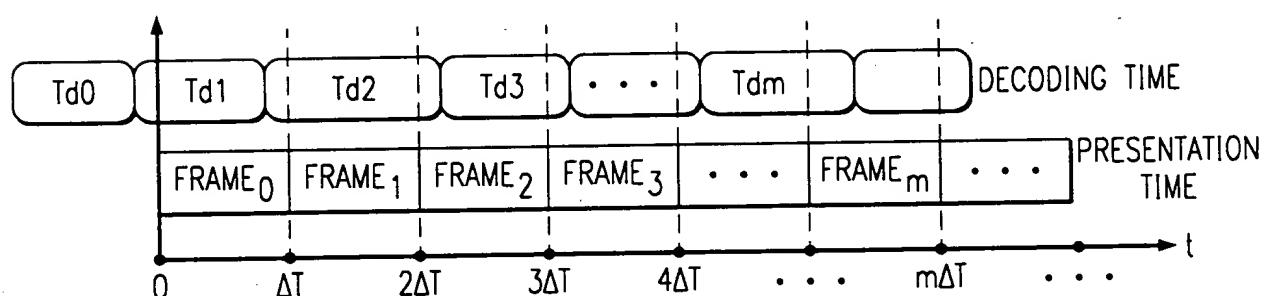


FIG. 46a

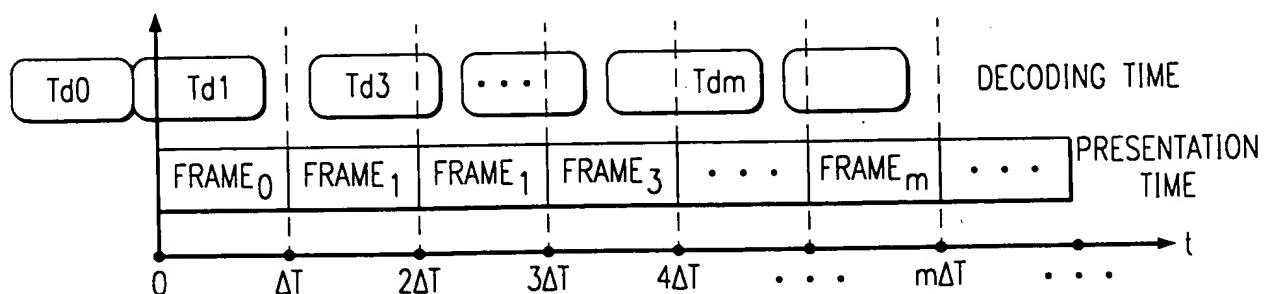


FIG. 46b

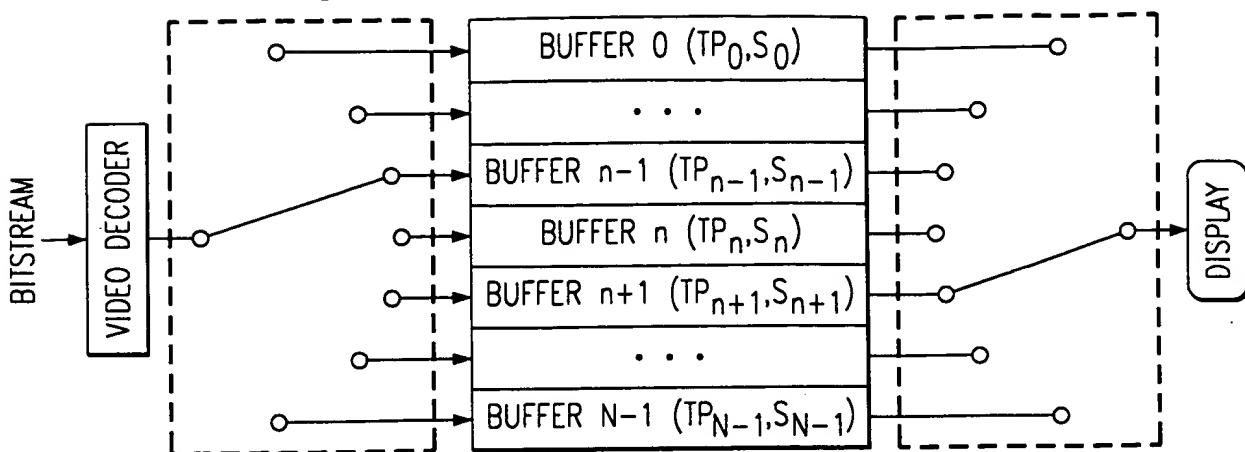


FIG. 47

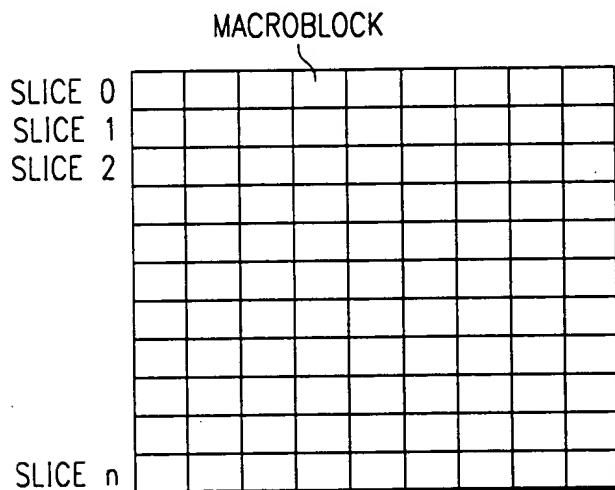


FIG. 49

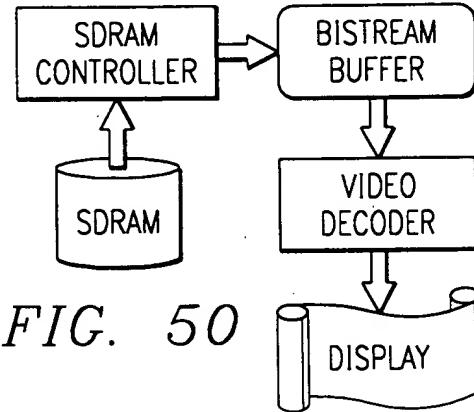


FIG. 50

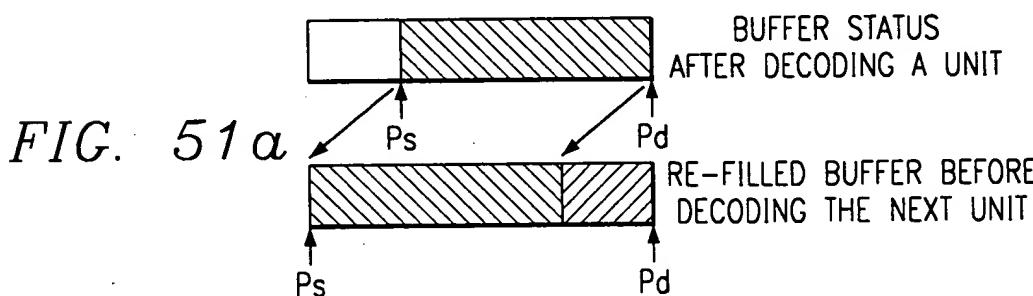


FIG. 51a

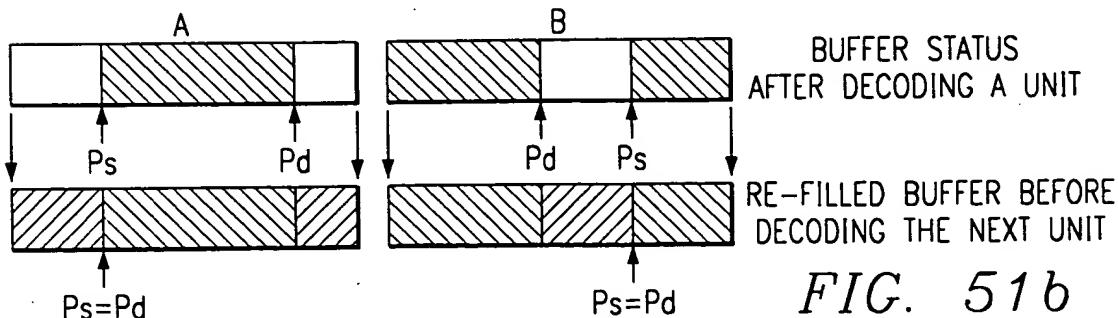


FIG. 51b

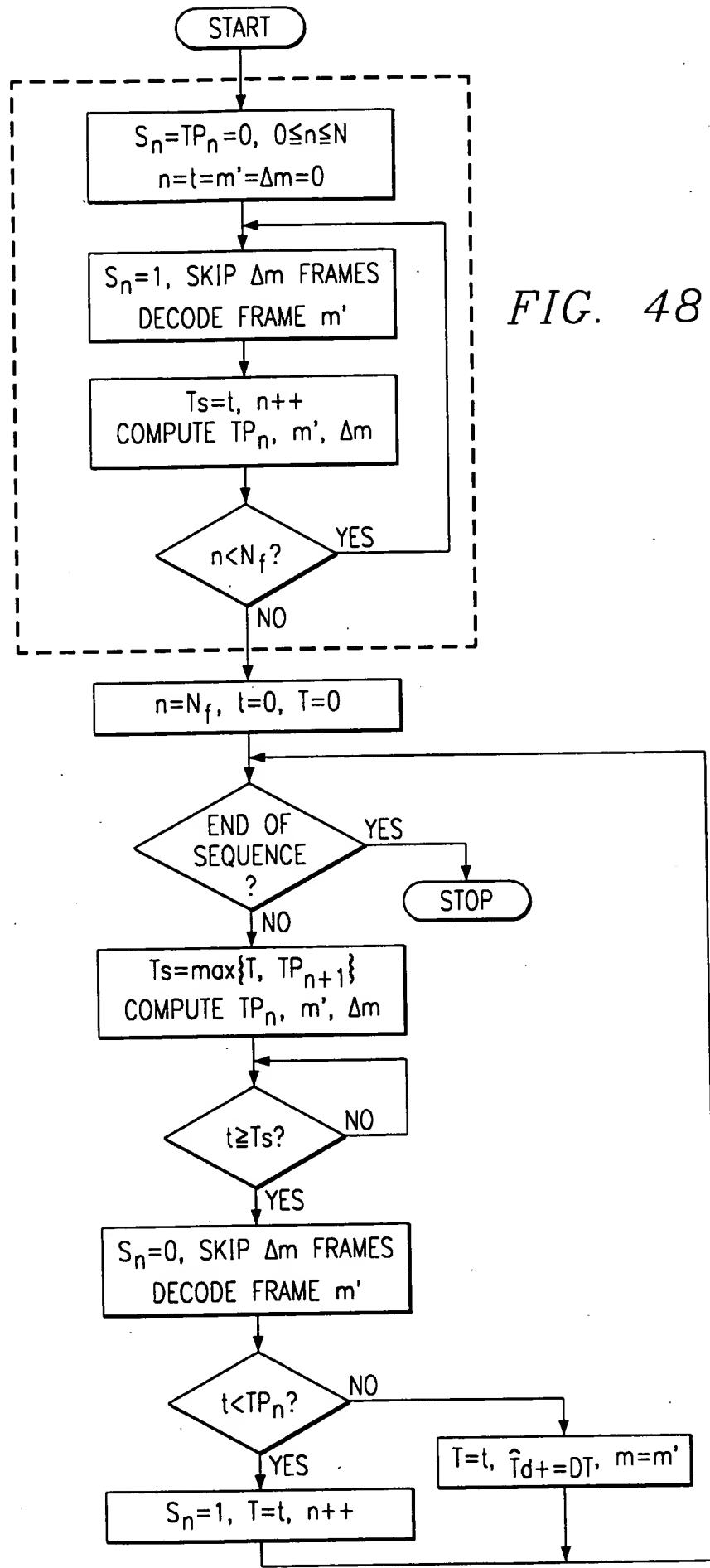


FIG. 48

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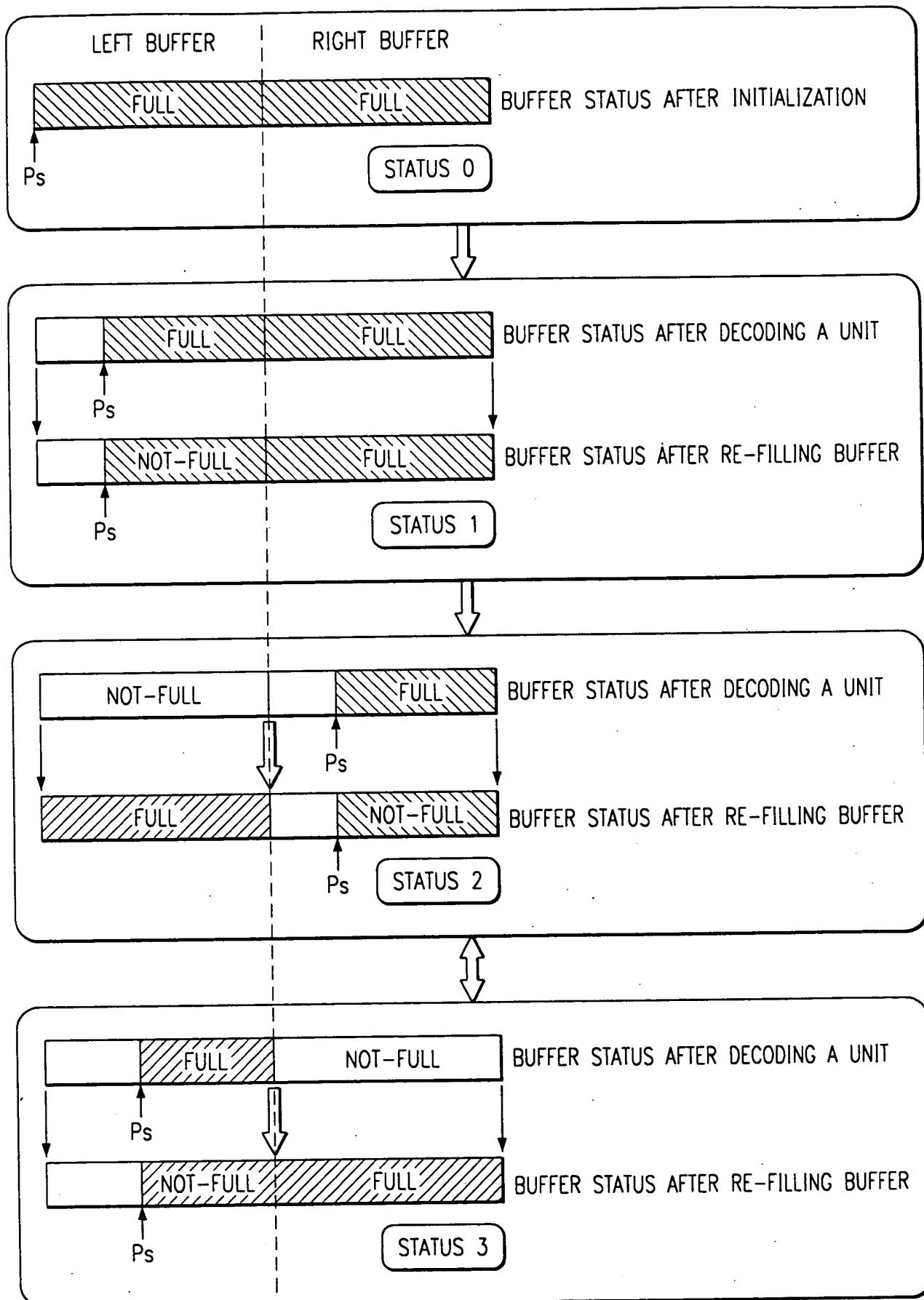


FIG. 52